APPENDICES

There are no pages A1-A13

APPENDIX 1
Computer Programs

BUILD FALSE

5

```perl
#!/usr/leo/bin/perl

if (scalar @ARGV <4) { die "Need Pool, Seq, #False positives, #False negatives\n"; }

$FalsePos=$ARGV[2];
$FalseNeg=$ARGV[3];
open(POOL,$ARGV[0]);
print "Using pool $ARGV[0]\n";
$pools=0;
while(<POOL>)
{
        last if (/TotCost/);
        chop $_;
        @Probes=split(/[: ]/,$_);
        shift @Probes;
        shift @Probes;
        shift @Probes;
        if (scalar @Probes > 0)
        {
                @{$Pool[$pools]}=@Probes;
                foreach $probe (@Probes)
                {
                        $PoolInd{$probe}=$pools;
                }
                $pools++;
        }
}

print "Using sequence $ARGV[1]\n";
open(SEQ,$ARGV[1]);
$Seq="";
while (<SEQ>)
{
        chop $_;
        $Seq .= uc($_);
}

$Found=0;
```

```perl
undef(%Mers);
undef(@Solutions);
undef(%On);
foreach $i(0..length($Seq)-10)
{
        $fprobe=substr($Seq,$i,5);
        $lprobe=substr($Seq,$i+5,5);
        $pool=$PoolInd{$lprobe};
        $On{$fprobe}{$pool}=1;
}
foreach $prb (keys %On)
{
        foreach $pool (keys %{$On{$prb}})
        {
                print "True Signal: fp=$prb pool=$pool\n";
                push @Signals, new_signal($prb,$pool);
        }
}
$NumOn=scalar @Signals;

@char = qw( A C G T );
foreach $1(@char) {
foreach $2(@char) {
foreach $3(@char) {
foreach $4(@char) {
foreach $5(@char) {
        push @Probes, $1.$2.$3.$4.$5;
}}}}}
foreach $i (1..$FalsePos)
{
        $pool = int(rand($pools));
        $fixed = $Probes[rand(1024)];
        $On{$fixed}{$pool}=1;
        print "False positive Signal: fp=$fixed pool=$pool\n";
}

foreach $i (0..$FalseNeg-1)
{
        $tmpSignal=$Signals[$i];
        $randPos = $i + int($NumOn);
        $Signal=$Signals[$randPos];
        $Signals[$i]=$Signal;
        $Signals[$randPos]=$tmpSignal;
```

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```perl
                $On{$Signal->[0]}{$Signal->[1]}=0;
                print "False negative : fp=$Signal->[0] pool=$Signal->[1]\n";
                $NumOn--;
        }
foreach $prb (keys %On)
{
        foreach $pool (keys %{$On{$prb}})
        {
                if ($On{$prb}{$pool}==1)
                {
                        foreach $probeInPool (@{$Pool[$pool]})
                        {
                                $Mers{$prb.$probeInPool}=1;
                        }
                }
        }
}
print STDERR "10mers:", scalar (keys %Mers),"\n";
print "10mers:", scalar (keys %Mers),"\n";
$overlap=2;
foreach $mer (keys %Mers)
{
        foreach $o (1..$overlap)
        {
                $Prefix[$o]{substr($mer,0,length($mer)-$overlap)}.=
                        substr($mer,length($mer)-$overlap,$o)." ";
                $Postfix[$o]{substr($mer,$overlap,length($mer)-$overlap)}.=
                        substr($mer,$o-1,$overlap+1-$o)." ";
        }
}
undef(%Pre);
undef(%Post);
foreach $mer (keys %Mers)
{
        $Pre{substr($mer,0,length($mer)-1)}.=substr($mer,length($mer)-1,1);
        $Post{substr($mer,1,length($mer)-1)}.=substr($mer,0,1);
}
undef(%Mers);
foreach $submer (keys %Post)
{
        @chars=split(//,$Pre{$submer});
        @Chars=split(//,$Post{$submer});
        foreach $ch (@chars)
```

A 16 -

```perl
                {
                        foreach $Ch (@Chars)
                        {
                                $Mers{$Ch.$submer.$ch}=1;
                        }
                }
        }
        foreach $o (1..$overlap)
        {
                foreach $submer (keys %{$Postfix[$o]})
                {
                        @chars=split(/ /,$Prefix[$o]{$submer});
                        @Chars=split(/ /,$Postfix[$o]{$submer});
                        foreach $ch (@chars)
                        {
                                foreach $Ch (@Chars)
                                {
                                        $Mers{$Ch.$submer.$ch}=1;
                                }
                        }
                }
        }
        foreach $i (0..length($Seq)-11)
        {
                $mer = substr($Seq,$i,11);
                if (!$Mers{$mer})
                {
                        print STDERR $mer, " not found!\n";
                        exit(1);
                }
        }

        print STDERR "11mers:", scalar (keys %Mers),"\n";
        print "11mers:", scalar (keys %Mers),"\n";
        foreach $lenMer (12..length($Seq))
        {
                undef(%Prefix);
                undef(%Postfix);
                foreach $mer (keys %Mers)
                {
                        $Prefix{substr($mer,0,length($mer)-1)}.=substr($mer,length($mer)-1,1);
                        $Postfix{substr($mer,1,length($mer)-1)}.=substr($mer,0,1);
                }
```

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```perl
            undef(%Mers);
            foreach $submer (keys %Postfix)
            {
                    @chars=split(//,$Prefix{$submer});
                    @Chars=split(//,$Postfix{$submer});
                    foreach $ch (@chars)
                    {
                            foreach $Ch (@Chars)
                            {
                                    $Mers{$Ch.$submer.$ch}=1;
                            }
                    }
            }
            print STDERR $lenMer,"mers:", scalar (keys %Mers),"\n";
            print $lenMer,"mers:", scalar (keys %Mers),"\n";
            if (($lenMer%50 == 0) && (scalar (keys %Mers) > 4000))
            {
                    print STDERR "Cleaning...";
                    $Cleaned=0;
                    foreach $seq (keys %Mers)
                    {
                            undef(%testOn);
                            foreach $i(0..length($seq)-10)
                            {
                                    $fprobe=substr($seq,$i,5);
                                    $pool=$PoolInd{substr($seq,$i+5,5)};
                                    $testOn{$fprobe}{$pool}=1; #To see if all are fully represented
                            }
                            $NumtestOn=0;
                            foreach $prb (keys %testOn) { $NumtestOn += scalar (keys
%{$testOn{$prb}}); }
                            if ($NumtestOn<($lenMer-15))
                            {
                                    $Cleaned++;
                                    delete $Mers{$seq};
                            }
                    }
                    print STDERR "$Cleaned cleaned out.\n";
            }
    }
    print STDERR "Checking all ",scalar (keys %Mers), " solutions for full dot-representation...";
    print OUT "#Growths: ", scalar (keys %Mers)," ";
```

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```perl
NEXT:foreach $seq (keys %Mers)
{
        undef(%testOn);
        foreach $i(0..length($seq)-10)
        {
                $fprobe=substr($seq,$i,5);
                $pool=$PoolInd{substr($seq,$i+5,5)};
                $testOn{$fprobe}{$pool}=1; #To see if all are fully represented
        }
        $NumtestOn=0;
        foreach $prb (keys %testOn) { $NumtestOn += scalar (keys %{$testOn{$prb}}); }
        if ($seq eq $Seq)
        {
                $Found=1;
                $seq .= " True solution ";
        }
        if ($NumtestOn>=$NumOn)
        {
                push @Solutions, $seq;
                print "$seq DotsOn=$NumtestOn\n\n";
        }
}
print STDERR "done.\n",scalar @Solutions, " consistent solutions found";
if ($Found)
{
        print STDERR " including the true one.";
}
else {
        print STDERR " - TRUE not FOUND!!";
}
print "Solutions: ",scalar @Solutions," ";

sub new_signal
{
        my ($fp,$pool)=@_;
        my @Signal = ($fp,$pool);
        return \@Signal;
}
```

BuildMMult

```perl
#!/usr/leo/bin/perl

if (scalar @ARGV <4) { die "Need Pool, Seq, #False positives, #False negatives\n"; }

$FalsePos=$ARGV[2];
$FalseNeg=$ARGV[3];
open(POOL,$ARGV[0]);
print "Using pool $ARGV[0]\n";
$pools=0;
while(<POOL>)
{
        last if (/TotCost/);
        chop $_;
        @Probes=split(/[: ]/,$_);
        shift @Probes;
        shift @Probes;
        shift @Probes;
        if (scalar @Probes > 0)
        {
                @{$Pool[$pools]}=@Probes;
                foreach $probe (@Probes)
                {
                        $PoolInd{$probe}=$pools;
                }
                $pools++;
        }
}

print "Using sequence $ARGV[1]\n";
open(SEQ,$ARGV[1]);
$Seq="";
while (<SEQ>)
{
        chop $_;
        $Seq .= uc($_);
}

$Found=0;
undef(%Mers);
undef(@Solutions);
undef(%On);
```

Line numbers in left margin: 5, 10, 15, 20, 25, 30, 35, 40

```perl
        foreach $i(0..length($Seq)-10)
        {
                $fprobe=substr($Seq,$i,5);
                $lprobe=substr($Seq,$i+5,5);
                $pool=$PoolInd{$lprobe};
                $On{$fprobe}{$pool}=1;
        }
        foreach $prb (keys %On)
        {
                foreach $pool (keys %{$On{$prb}})
                {
                        print "True Signal: fp=$prb pool=$pool\n";
                        push @Signals, new_signal($prb,$pool);
                }
        }
        $NumOn=scalar @Signals;

        @char = qw( A C G T );
        foreach $1(@char) {
        foreach $2(@char) {
        foreach $3(@char) {
        foreach $4(@char) {
        foreach $5(@char) {
                push @Probes, $1.$2.$3.$4.$5;
        }}}}}
        foreach $i (1..$FalsePos)
        {
                $pool = int(rand($pools));
                $fixed = $Probes[rand(1024)];
                $On{$fixed}{$pool}=1;
                print "False positive Signal: fp=$fixed pool=$pool\n";
        }

        foreach $i (0..$FalseNeg-1)
        {
                $tmpSignal=$Signals[$i];
                $randPos = $i + int($NumOn);
                $Signal=$Signals[$randPos];
                $Signals[$i]=$Signal;
                $Signals[$randPos]=$tmpSignal;
                $On{$Signal->[0]}{$Signal->[1]}=0;
                print "False negative : fp=$Signal->[0] pool=$Signal->[1]\n";
                $NumOn--;
```

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```perl
        }
        foreach $prb (keys %On)
        {
                foreach $pool (keys %{$On{$prb}})
                {
                        if ($On{$prb}{$pool}==1)
                        {
                                foreach $probeInPool (@{$Pool[$pool]})
                                {
                                        $Mers{$prb.$probeInPool}=1;
                                }
                        }
                }
        }
        print STDERR "10mers:", scalar (keys %Mers),"\n";
        print "10mers:", scalar (keys %Mers),"\n";
        #$overlap=2;
        #foreach $mer (keys %Mers)
        #{
        #       foreach $o (1..$overlap)
        #       {
        #               $Prefix[$o]{substr($mer,0,length($mer)-$overlap)}.=
        #                       substr($mer,length($mer)-$overlap,$o)." ";
        #               $Postfix[$o]{substr($mer,$overlap,length($mer)-$overlap)}.=
        #                       substr($mer,$o-1,$overlap+1-$o)." ";
        #       }
        #}
        undef(%Pre);
        undef(%Post);
        foreach $mer (keys %Mers)
        {
                $Pre{substr($mer,0,length($mer)-1)}.=substr($mer,length($mer)-1,1);
                $Post{substr($mer,1,length($mer)-1)}.=substr($mer,0,1);
        }
        undef(%Mers);
        foreach $submer (keys %Post)
        {
                @chars=split(//,$Pre{$submer});
                @Chars=split(//,$Post{$submer});
                foreach $ch (@chars)
                {
                        foreach $Ch (@Chars)
                        {
```

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```perl
                            $Mers{$Ch.$submer.$ch}=1;
                    }
                }
        }
#foreach $o (1..$overlap)
#{
#       foreach $submer (keys %{$Postfix[$o]})
#       {
#               @chars=split(/ /,$Prefix[$o]{$submer});
#               @Chars=split(/ /,$Postfix[$o]{$submer});
#               foreach $ch (@chars)
#               {
#                       foreach $Ch (@Chars)
#                       {
#                               $Mers{$Ch.$submer.$ch}=1;
#                       }
#               }
#       }
#}
foreach $i (0..length($Seq)-11)
{
        $mer = substr($Seq,$i,11);
        if (!$Mers{$mer})
        {
                print STDERR $mer, " not found!\n";
                exit(1);
        }
}

print STDERR "11mers:", scalar (keys %Mers),"\n";
print "11mers:", scalar (keys %Mers),"\n";
foreach $lenMer (12..length($Seq))
{
        undef(%Prefix);
        undef(%Postfix);
        foreach $mer (keys %Mers)
        {
                $Prefix{substr($mer,0,length($mer)-1)}.=substr($mer,length($mer)-1,1);
                $Postfix{substr($mer,1,length($mer)-1)}.=substr($mer,0,1);
        }
        undef(%Mers);
        foreach $submer (keys %Postfix)
        {
```

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```perl
                @chars=split(//,$Prefix{$submer});
                @Chars=split(//,$Postfix{$submer});
                foreach $ch (@chars)
                {
                        foreach $Ch (@Chars)
                        {
                                $Mers{$Ch.$submer.$ch}=1;
                        }
                }
        }
        print STDERR $lenMer,"mers:", scalar (keys %Mers),"\n";
        print $lenMer,"mers:", scalar (keys %Mers),"\n";
        if (($lenMer%50 == 0) && (scalar (keys %Mers) > 4000))
        {
                print STDERR "Cleaning...";
                $Cleaned=0;
                foreach $seq (keys %Mers)
                {
                        undef(%testOn);
                        foreach $i(0..length($seq)-10)
                        {
                                $fprobe=substr($seq,$i,5);
                                $pool=$PoolInd{substr($seq,$i+5,5)};
                                $testOn{$fprobe}{$pool}=1; #To see if all are fully represented
                        }
                        $NumtestOn=0;
                        foreach $prb (keys %testOn) { $NumtestOn += scalar (keys
%{$testOn{$prb}}); }
                        if ($NumtestOn<($lenMer-15))
                        {
                                $Cleaned++;
                                delete $Mers{$seq};
                        }
                }
                print STDERR "$Cleaned cleaned out.\n";
        }
}
print STDERR "Checking all ",scalar (keys %Mers), " solutions for full dot-representation...";
print OUT "#Growths: ", scalar (keys %Mers)," ";

NEXT:foreach $seq (keys %Mers)
{
        undef(%testOn);
```

```perl
        foreach $i(0..length($seq)-10)
        {
                $fprobe=substr($seq,$i,5);
                $pool=$PoolInd{substr($seq,$i+5,5)};
                $testOn{$fprobe}{$pool}=1; #To see if all are fully represented
        }
        $NumtestOn=0;
        foreach $prb (keys %testOn) { $NumtestOn += scalar (keys %{$testOn{$prb}}); }
        if ($seq eq $Seq)
        {
                $Found=1;
                $seq .= " True solution ";
        }
        if ($NumtestOn>=$NumOn)
        {
                push @Solutions, $seq;
                print "$seq DotsOn=$NumtestOn\n\n";
        }
    }
print STDERR "done.\n",scalar @Solutions, " consistent solutions found";
if ($Found)
{
        print STDERR " including the true one.";
}
else {
        print STDERR " - TRUE not FOUND!!";
}
print "Solutions: ",scalar @Solutions," ";

sub new_signal
{
        my ($fp,$pool)=@_;
        my @Signal = ($fp,$pool);
        return \@Signal;
}
```

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APPENDIX 2
Experimental Target Sequence r300

```
5    GTAGGGGTAG ACATCGCGTA AAAGGGGCGT ACCCAGGACC CCCCTTGGCT CAATAAGTAG
     CGCTGGGGTG CTACTACGGG TCTCGACACG CATTCAACTA AAAGCTTCCA TTCGCACGGG
     CTTATTTAAC GAAGGTCGCG ATAAGGTGCC GAATAGGCTG CAGAGCGGCA GCCTGTCCAG
     TGAATGCTGT GAGGCCTCCA GCTGACTCAT GAGAGAAGCC CAGTATTCAA ACTACGATTC
     CACTCGACAA TTTAGGATGT CTTCCCGAAA GCTATCGGGT AGAATATCAG ATTCGTTTAA
10
```

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APPENDIX 3
D16 and DN16 Pools of Probes

D16

Group 0:64:

GATTT	CAGCT	GAAAA	TGGTT	AAAGT	CGCTC
AAGAT	CAAGC	TAACG	GCCTC	TGCAA	CAATG
AGAAC	TCAAA	ACTAT	TCAGT	GGGAA	TTCTA
TTGCT	GTAAG	GGTAC	TTAGA	TAGTC	CCACA
CTCTT	ATGAA	TCTGA	ACCGC	TACAC	CCTTA
AACAG	TGGGG	GCACC	GTGGC	GGCTG	GTCCA
TATGT	GGACT	AGCGA	TGATG	GATCA	TCCCG
TCTCC	GCGGG	GTCGT	CGCCG	ATTGG	GTATC
AGTTA	ATACT	CTTCC	CCCAG	GCCAT	TGTTC
GTTTG	CGTAG	TTTAT	AACCC	CCGAC	CAGGA
CTGCG	CGATA	ACGTG	AGGCA		

Group 1:64:

GTAAA	TCAGG	ACTCC	ATTAC	CCTGT	GCCCG
GGATG	CAACG	AATGG	TATCG	CTCAA	TGCCG
GAGGA	TAATC	CAAGT	TGCTA	ACCAA	TAGAA
GGCTC	TACGC	CGGGG	TTATA	CTCGG	CTACC
ATCTG	TTTAG	CATAC	CCCCT	GACAG	AGAGA
CCAGA	ACTTA	GCACA	GCTTG	TCCAC	CTGGC
CCGCA	AAACA	ATGTC	TGGGT	TCTTC	ATAGT
TGACC	TTGAT	AGCAT	GTTCA	CGTCA	ACATT
AGGTA	AAGCC	CGAAT	CGGAC	TCGTG	GGCGT
TGTGA	GGTGC	CAGTT	GCGGC	CACTA	GGTCT
GTATT	ATCCT	GCGAT	CTTTT		

Group 2:64:

TAGGG	GCGTC	GTTTC	AGATT	TGTGT	TTCGA
TAATT	CTGAC	GGGCG	CCAAT	CTAGT	ATTCC
TGCTG	GTCCG	TACCC	AGCAG	GTTCT	ACTCG
TTAAG	CCCGG	CGCCT	GATAG	TACAA	TCATA
CAGAG	TCCCT	CCTAA	GGAGA	CCACC	AGACC
CCGTT	TCTGC	CGATG	AGCGC	CGGTA	ACAGG
ATGGG	AAGTG	CATGT	GCATT	CAGTC	CTTTG
TTGTT	TGAAC	GAAGG	GGCAA	GACTA	ACGAC
ACCAT	CAACA	AATAC	GACGT	ATAAA	GTAGC
GAGGC	AAACT	CTCTC	GCTCA	CGTGC	ATCTA
GGGAT	TTGCA	ACGGA	AGTAA		

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Group 3:64:

ACGGT	CGGCA	ATACG	CCTTC	AACGC	CGCGC
CGACG	CGGGT	GTGAA	AGCAA	CTAGA	TCGTA
GAACT	TGTGC	GCCCC	TTCTT	TGCCT	TCAAG
CCTGG	TAAGG	TCCTC	ATCAC	CACTT	ACGAG
GTTGT	TTAGC	CACAG	GCATA	AAATC	CTAAT
GCAGC	GAGAC	GGTAG	TGACA	AATAT	TATTC
TTGCG	GCTAT	TGGAT	GATGG	ATGTT	TACCA
ATTTG	TCTCG	CTTTA	ATTGA	CTCCC	AGGCC
GTCGG	GGTTA	AAGCG	ACTCA	TCCGT	AGCTG
CATCC	AGAGG	GAGTG	GTGTC	AAAAA	CCCAA
CGATT	CCGCT	TAGGA	TGGTG		

Group 4:64:

TAAAT	CGTAT	AAAAG	CAAGA	ACGAT	GAACA
TTCGC	AACGG	TATGA	ATCAA	TCCAA	CGCGT
CAGAA	AACCT	GCGCA	GAGGG	AATGT	ATGCC
CTGGT	GGGCT	GAGTT	AAGTA	CAGCC	TGTAC
CAATC	AGCTC	GCAAC	ATGGA	TAGCA	TCTCT
GCCGT	CTACG	CTTAC	GTTAG	CCTGC	CGTCG
TTCCG	TCGGG	GACAC	ACATG	GGCGA	AGACT
GGATA	GTCCT	ATAAC	CCATT	CACTG	GATTC
TACTA	CCCCA	ATTTC	GGGAG	CCGAG	CATCT
TGAGC	GGTCA	GTAGG	AGTGG	TCACC	CGCCC
GCTTT	TTATT	TGTTG	TTGTG		

Group 5:64:

GGGCC	TCTAG	ACCGA	GAAAT	CATAG	CCTGA
GTTAC	AACAA	TGCGC	CGGAA	AACTT	TAAAA
ATAAG	CGCTT	GCTCT	ACTGT	TCCAT	ATGAT
CTTCG	CTGGG	AATCG	CAGCA	TTCTG	GCTAA
TGGTA	CCCCG	CTATA	AGCGG	GAACG	CACGG
TGTAT	GCCGC	TACCT	TCGCC	TAGAC	GTGTT
AGATA	GACCC	TAGGT	AAGGC	ACACC	TTATC
TCATG	CCAAC	CTCAC	GCGTG	GTACA	GACGA
CCGTC	ATTTT	GATTA	CATTC	CTGCT	CGAGC
TGACT	AGTTC	GGAGT	CCAGT	AGGAC	GTCAG
GGTGG	ACGCG	ATCCC	TTTGA		

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Group 6:64:

AAGGG	CATAT	GCCTA	GAAAC	TGATT	ACAGC
TCGTC	CAGAC	CCAAG	CGCAA	CAATA	CTCTG
CGGCG	AGGAG	AACGA	GGCCC	CTACT	ACGCC
CTCGC	GCGCG	TACCG	AGCAC	TGTAA	TGCGT
TTGAA	ATAGA	TTAGG	TAAAG	ACTAA	TTTAC
ATTGT	TATGC	AACTC	ACCAG	TAGCT	AGATG
TATTA	CATGG	CGTGT	GTCAT	AGTTT	AAAAT
CCGGT	TCGAT	ATTCG	GGACA	GGGTA	GAGGT
CGAAC	GCATC	GCTGA	GTGAG	CCTCA	TCACT
GACTT	GATCC	GTTGG	TTCCA	CGGGA	ACCCT
CCTTG	CTTTC	CTGTT	TGGGC		

Group 7:64:

TCCGG	CGGGC	AAAAC	GGAAG	GACAA	TGCAC
GTCTC	CAATT	AGTGT	GCAGT	GGCCG	GCGAA
CGTTC	TGGCA	AGTAG	TTAAT	CGACT	CTTCA
AACTG	ACTTT	ACGGC	CTAAC	CGTAA	GACCT
ACCCC	ATAGG	CTTAG	TACAG	TCGGT	CACGC
GATAC	CTCGT	CATTA	TGAGA	AGACG	GTGGG
CCGTG	GTATA	GATTG	GGTGA	TAGTT	GGGTC
ATGTA	TCTAC	CAGCG	TCACA	TAAGC	AAGGA
ATCAT	TTGCC	ATTCT	GTACC	TCCTA	TGTTT
CGGAT	TTATG	TATCT	AGCCA	ACATA	TCGAG
GCGCT	TTGGA	CCAGG	CCTCC		

Group 8:64:

TTTTC	GCCCA	ATATC	GGAAA	GTTGA	CAGTA
AGTCC	TGTCG	TCACG	ACCAC	CGATC	TGAAT
AAAGA	CGTTA	CACAT	CCTCT	GATGC	CTAAG
CTACA	TATAA	GCGAC	GGGGG	CTCGA	GGCGC
GTCTT	ATTAT	TAATG	AGGAT	AATCA	TCTGT
CACCC	AACCG	AATAG	CGGCT	GAGAG	GTGTA
CCGAA	GTTCG	ACGCT	CCGCG	GGTTT	AAATT
AGGTG	TCCTT	ATCGT	TTCAA	ACTTG	ATGGC
TCGGA	CCCTA	TAGCC	TGCCA	TTGGG	TATTT
GCATG	AGAAG	CGCAG	CAAGG	TGGAC	GAGCT
CCAGC	ACAAA	GCCGG	GTACT		

Group 9:64:

TAGTA	TATCC	GTAAC	ACGTT	TTTAA	CTTGT
ATACA	CACAA	AGGAA	ATAGC	TTACT	CACCT
CATCG	TTCGT	GCTTA	AACCA	CGCTG	TAGAG
CCCTT	GCCGA	AATTT	AGTCT	GCGCC	TCGCA
ATAAT	TAAAC	CTGTA	CGACC	TACGG	GGCGG
CCGGC	GATAT	CAGGT	CCAAA	TGGTC	TTCCC
ATCTC	AGGGC	GAATG	TGTCA	GTGAT	GGCCT
TTGGC	ATGCG	ACTGA	TCATT	GAAGT	GGGTT
GCCAC	ACTAC	TCTGG	ACCCG	CGTAC	CTCAG
AAAGG	CATGA	TTTTG	GACTC	GTTGC	TGCAT
GCTAG	GGACG	TGAGG	GTGGA		

Group 10:64:

CCACG	GCAGA	AACGT	GAGAT	GGGCA	CGTTG
CCGTA	TGATA	GCCTG	TCCGA	AAGCA	GAATA
ATTCA	CGAGG	TGGGA	GGCTT	TGAAG	TGTCC
CCCTC	GCTGT	TAACT	ATCAG	TTCCT	CTCTA
TTACC	GGAAC	TCGCG	GTTAA	ATGAC	GATCG
GCAAT	GTGCT	ACTAG	AGGGT	AGCCG	CGCCA
TTTGG	ATGTG	CTGCC	TCTTT	CATGC	AAATG
TCTCA	ACACA	AGTGA	AGTAT	GTCAC	ACATC
GACGC	GGTTC	ACCTT	TACTG	CTGGA	GACCA
AGAGC	ACGGG	CAAAA	GTACG	CGCAT	TCGAC
TATAT	CTATT	GAGTC	CCTAC		

Group 11:64:

GAACC	AGCCT	AACAT	CACGT	GGGGC	CTCCA
GCTCG	ACAAG	GTCTG	GGCTA	TGTAG	ATATT
TCGTT	CCACT	ACCTA	CTTAT	CGCAC	TAATA
TGGCG	TTCGG	TACTC	TTGTC	AGGTC	TCCCA
CCTTT	GTTCC	ATTTA	GCGGA	GGAAT	TTTCT
CAAAC	ATCGC	GAGCG	CTTGA	TCAAC	TTCAT
TGATC	AGAGT	ACCGG	CGAGA	GCTTC	CAGTG
TTAAA	TACGA	CCGCC	AAAGC	AGACA	GGTAA
CGTGG	GCCAG	CGGTT	GATGT	GCAGG	AATTG
TAGAT	AAGAA	CATCA	ATGCA	CTGAG	ATGGT
GTGAC	ACTGC	AGTAC	CTATG		

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Group 12:64:

TGCTT	GAGCA	ATATG	TTACA	GGATC	ACACG
CTCAT	CTGTC	AGAAT	TATTG	CTGCA	GCAAA
ATTAA	TACGT	GCCCT	AAGAC	ACCCA	GTCTA
CTAAA	AGTCG	ACCTC	CGCGA	GGTAT	CGAGT
CCTAG	GTCCC	TTCAC	GTGCG	TGGCC	TCGCT
TTGAG	TCAAT	GATGA	AGCTA	GGCAC	CTTCT
GCGGT	ACGAA	ATCGG	CCGGG	TGGAA	TGTGG
CGTTT	AGGCT	GAAAG	GAAGC	AAATA	GGGTG
CACCG	TCAGC	CCATG	GCTCC	CTTGC	CACTC
AATCC	TCCAG	AAGTT	CATAA	CAACC	TCTTA
TGACG	CGGAG	GTAGT	ACAGA		

Group 13:64:

TTTGT	ATTAG	TAAGA	TCGAA	CGACA	ACTTC
AGAAA	GTAGA	AAGTC	CCTAT	GCGTA	CGTCC
ACCGT	TCTTG	GAATT	TCCCC	ATCCG	GCTGC
GTCAA	GATAA	GGTCG	TTCTC	TGGCT	AGGGG
GGGAC	CCATC	GTGGT	GTTTT	AACTA	TCGGC
AAACC	GGCCA	TGAGT	AATGA	CTCCT	GTGCC
CAGGC	TATAC	GACGG	AGGTT	AGCCC	TACAT
CAGAT	GCACG	GTGTG	GGCAT	CGCGG	TTTCA
CCCGA	AATCT	TGCAG	CTGAA	CGGTG	ACACT
CCCAC	TAGCG	CTAGG	CAAAG	TTAAC	ATTGC
GGAGC	ACCTG	TGTTA	ACGCA		

Group 14:64:

CGGTC	GCTGG	GTCGC	TTTCC	TTGTA	CACAC
GCGTT	ACAAC	CGTCT	ACTCT	CGAAA	AGTTG
CTTGG	AGCTT	ACGTA	AGTGC	TGGAG	AGTCA
CTCCG	TTAGT	GTAAT	TTACG	GGGGA	ACAGT
TCATC	ATCGA	CCCAT	CCCGC	GCAAG	TGCCC
TTCAG	GAAGA	AAACG	TAACA	CAAAT	ATGAG
AATAA	ATATA	TGCGA	GGCAG	GCTAC	CTATC
CCGGA	CACCA	GAGAA	TTTTT	CAGGG	GATCT
TACTT	GGTGT	CATTG	GGACC	GACTG	ATGCT
GAGCC	TATGG	TCCTG	TAGGC	AAGGT	AATTC
GTTTA	CTGAT	GGATT	TCTAA		

Group 15:64:

AATTA	TAGTG	TATAG	GGGGT	GGTCC	TGAAA
CTTAA	AAGCT	CCCTG	CTGTG	GCCTT	CGAAG
CCTCG	TATCA	TAACC	TTGGT	CATTT	CCATA
TAAGT	CGTGA	AGGGA	GTCGA	GGTTG	AGATC
TGTCT	ATCTT	GACAT	TCAGA	GGAGG	AAGAG
AGGCG	GTTAT	TGCGG	CCCGT	TTTCG	CACGA
GAATC	ATACC	CAACT	GCACT	TTGAC	ACTGG
GCCAA	CCGAT	TGCTC	GTGCA	GCGAG	GACCG
GAGTA	TTTTA	AGCGT	CGCTA	TCCGC	TCTAT
CGGCC	CTAGC	GTATG	ATCCA	AACAC	ACAAT
TTTGC	CCCCC	ACGTC	AATGC		

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Group 0:64:

```
5           GATTT   CCTTT   GAAAA   TGGTT   AAAGT   CGCTC
            AAGAT   CAAGC   TAACG   GCCTC   TGCAA   CAATG
            AGAAC   TCAAA   ACTAT   TCAGT   GGGAA   TTCTA
            TTGCT   GTAAG   GGTAC   TTAGA   TAGTC   CCACA
            CTCTT   AACTT   TCTGA   ACCGC   TACAC   GACGA
10          AACAG   TGGGG   GCACC   GTGGC   GGCTG   GTCCA
            TATGT   GGACT   AGCGA   TGATG   GATCA   TCCCG
            TCTCC   GCGGG   GTCGT   CGCCG   ATTGG   GTATC
            AGTTA   ATACT   CTTCC   CCCAG   CTTAT   TTGAG
            GTTTG   CGTAG   CATGG   AACCC   CCGAC   CAGGA
15          CTGCG   CGATA   ACGTG   AGGCA
```

Group 1:64:

```
20          GTAAA   TCAGG   ACTCC   AAAGC   CCTGT   GCCCG
            GGATG   CAACG   AATGG   TATCG   CTCAA   TGCCG
            GAGGA   TAATC   CAAGT   TGCTA   ACCAA   TAGAA
            GGCTC   TACGC   CGGGG   TTATA   CTCGG   CTACC
            ATCTG   TTTAG   CATAC   CCCCT   GACAG   AGAGA
25          CCAGA   ACTTA   GCACA   GCTTG   TCCAC   CTGGC
            CCGCA   AAACA   ATGTC   TGGGT   TCTTC   ACCTT
            TGACC   TTGAT   AGCAT   GTTCA   CGTCA   ACGAG
            AGGTA   ATTGT   CGAAT   CGGAC   TCGTG   GGCGT
            TGTGA   GGTGC   CAGTT   GCGGC   CACTA   GGTCT
30          GTATT   ATCCT   GCGAT   CTTTT
```

Group 2:64:

```
35          TAGGG   GCGTC   GTTTC   TTGGC   CCCCA   TTCGA
            TAATT   AGGTG   GGGCG   CCAAT   CTAGT   ATTCC
            TGCTG   GTCCG   TACCC   AGCAG   GTTCT   ACTCG
            TTAAG   CCCGG   CGCCT   GATAG   TACAA   TCATA
            CAGAG   TCCCT   CCTAA   GGAGA   CCACC   AGACC
40          CCGTT   TCTGC   CGATG   AGCGC   CGGTA   ACAGG
            TATCA   ATGAT   CATGT   GCATT   CAGTC   CTTTG
            TTGTT   TGAAC   TTTAC   GGCAA   GACTA   ACGAC
            ACCAT   CAACA   AATAC   GACGT   ATAAA   GTAGC
            GAGGC   AAACT   CTCTC   GCTCA   CGTGC   ATCTA
45          GGGAT   TTGCA   ACGGA   AGTAA
```

Group 3:64:

ACGGT	CGGCA	ATACG	CCTTC	AACGC	CGCGC
CGACG	CGGGT	GTGAA	AGCAA	CTAGA	TCGTA
GAACT	TGTGC	GCCCC	TTCTT	TGCCT	TCAAG
CCTGG	TAAGG	TCCTC	ATCAC	CACTT	ACATT
GTTGT	TTAGC	CACAG	GCATA	AAATC	CTAAT
GCAGC	GAGAC	GGTAG	TGACA	AATAT	TATTC
TTGCG	GCTAT	TGGAT	GATGG	ATGTT	TACCA
ATTTG	TCTCG	CTTTA	ATTGA	CTCCC	AGGCC
GTCGG	GGTTA	AAGCG	GGGCT	TCCGT	AGCTG
CATCC	AGAGG	GAGTG	GTGTC	AAAAA	CCCAA
CGATT	AGTAC	TAGGA	TGGTG		

Group 4:64:

TAAAT	CGTAT	AAAAG	CAAGA	ACGAT	GAACA
TTCGC	AACGG	TATGA	ATCAA	TCCAA	CGCGT
CAGAA	AACCT	GCGCA	GAGGG	AATGT	ATGCC
CTGGT	ACTCA	GAGTT	AAGTA	CAGCC	TGTAC
CAATC	AGCTC	GCAAC	ATGGA	TAGCA	TCTCT
GCCGT	CTACG	CTTAC	GTTAG	CCTGC	CGTCG
TTCCG	TCGGG	GACAC	ACATG	GGCGA	AGACT
GGATA	GTCCT	ATAAC	CCATT	CACTG	GATTC
CGCTA	CTTGA	ATTTC	GGGAG	CCGAG	CATCT
TGAGC	GGTCA	GTAGG	AGTGG	TCACC	CGCCC
GCTTT	TTATT	TGTTG	TTGTG		

Group 5:64:

GGGCC	TCTAG	ACCGA	GAAAT	CATAG	CCTCC
GTTAC	AACAA	TGCGC	CGGAA	ATGAA	TAAAA
ATAAG	CGCTT	ACGCA	ACTGT	TCCAT	AAGTG
CTTCG	CTGGG	AATCG	CAGCA	TTCTG	GCTAA
TGGTA	CCCCG	CTATA	AGCGG	GAACG	CACGG
TGTAT	GCCGC	TACCT	TACTA	TAGAC	GTGTT
AGATA	GACCC	TAGGT	AAGGC	ACACC	TTATC
TCATG	CCAAC	GTCGA	GCGTG	GTACA	CCTTA
CCGTC	ATTTT	GATTA	CATTC	CTGCT	CGAGC
TGACT	AGTTC	GGAGT	CCAGT	AGGAC	GTCAG
GGTGG	GATCT	ATCCC	TTTGA		

Group 6:64:

AGGCT	CATAT	GCCTA	GAAAC	TGATT	ACAGC
TCGTC	CAGAC	CCAAG	CGCAA	CAATA	CTCTG
CGGCG	GCCAG	AACGA	GGCCC	CTACT	ACTTC
CTCGC	GCGCG	TACCG	AGCAC	TGTAA	TGCGT
TTGAA	ATAGA	TTAGG	TAAAG	ACTAA	GAAGG
AAGCC	TATGC	TGTCG	CCCCC	TAGCT	AGATG
TATTA	TTTAT	CGTGT	GTCAT	AGTTT	AAAAT
CCGGT	TCGAT	ATTCG	GGACA	GGGTA	GAGGT
CGAAC	GCATC	GCTGA	GTGAG	CCTCA	TCACT
AGGAG	GATCC	GTTGG	TTCCA	CGGGA	ACCCT
CCTTG	CTTTC	CTGTT	TGGGC		

Group 7:64:

TCCGG	CGGGC	AAAAC	GGAAG	GACAA	TGCAC
GTCTC	CAATT	AGTGT	GCAGT	GGCCG	GCGAA
CGTTC	TGGCA	AGTAG	TTAAT	CGACT	CTTCA
AACTG	ACTTT	ACGGC	CTAAC	CGTAA	GACCT
ACCCC	ATAGG	CTTAG	TACAG	TCGGT	CACGC
GATAC	CTCGT	CATTA	TGAGA	AGACG	GTGGG
CCGTG	GTATA	GATTG	GGTGA	TAGTT	GGGTC
ATGTA	TCTAC	CAGCG	TCACA	TAAGC	AAGGA
ATCAT	TTGCC	ATTCT	GTACC	TCCTA	TGTTT
CGGAT	TTATG	TATCT	CCTGA	ACATA	TCGAG
GCGCT	TTGGA	CCAGG	AGCCA		

Group 8:64:

TTTTC	GCCCA	ATATC	GGAAA	GTTGA	CAGTA
AGTCC	CTGAC	TCACG	ACCAC	CGATC	TGAAT
AAAGA	CGTTA	CACAT	CCTCT	GATGC	CTAAG
CTACA	TATAA	GCGAC	GGGGG	CTCGA	GGCGC
GTCTT	ATTAT	TAATG	AGGAT	AATCA	TCTGT
CACCC	AACCG	AATAG	CGGCT	GAGAG	GTGTA
CCGAA	GTTCG	ACGCT	CCGCG	GGTTT	AAATT
AACTC	TCCTT	ATCGT	TTCAA	ACTTG	ATGGC
TCGGA	CCCTA	TAGCC	TGCCA	TTGGG	TATTT
GCATG	AGAAG	CGCAG	CAAGG	TGGAC	GAGCT
CCAGC	ACAAA	GCCGG	GTACT		

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Group 9:64:

TAGTA	TATCC	GTAAC	ACGTT	TTTAA	CTTGT
ATACA	CACAA	AGGAA	ATAGC	TTACT	CACCT
CATCG	TTCGT	GCTTA	AACCA	CGCTG	TAGAG
CCCTT	GCCGA	AATTT	AGTCT	GCGCC	TCGCA
ATAAT	TAAAC	CTGTA	CGACC	TACGG	GGCGG
CCGGC	GATAT	CAGGT	CCAAA	TGGTC	TTCCC
ATCTC	AGGGC	GAATG	TGTCA	GTGAT	GGCCT
AGATT	ATGCG	ACTGA	TCATT	GAAGT	GGGTT
GCCAC	ACTAC	TCTGG	ACCCG	CGTAC	CTCAG
AAAGG	CATGA	TTTTG	GACTC	GTTGC	TGCAT
GCTAG	GGACG	TGAGG	GTGGA		

Group 10:64:

CCACG	GCAGA	AACGT	GAGAT	GGGCA	CGTTG
CCGTA	TGATA	GCCTG	TCCGA	AAGCA	GAATA
ATTCA	CGAGG	TGGGA	GGCTT	TGAAG	TGTCC
CCGCT	GCTGT	TAACT	ATCAG	TTCCT	CTCTA
TTACC	GGAAC	TCGCG	GTTAA	ATGAC	GATCG
GCAAT	GTGCT	ACTAG	AGGGT	AGCCG	CGCCA
TTTGG	ATGTG	CTGCC	TCTTT	CATGC	AAATG
TCTCA	ACACA	AGTGA	AGTAT	GTCAC	ACATC
GACGC	GGTTC	ATAGT	TACTG	CTGGA	GACCA
AGAGC	ACGGG	CAAAA	GTACG	CGCAT	TCGAC
TATAT	CTATT	GAGTC	CCTAC		

Group 11:64:

GAACC	AGCCT	AACAT	CACGT	GGGGC	CTCCA
GCTCG	ACAAG	GTCTG	GGCTA	TGTAG	ATATT
TCGTT	CCACT	GCCAT	ACCTA	CGCAC	TAATA
TGGCG	TTCGG	TACTC	TTGTC	AGGTC	TCCCA
CAGCT	GTTCC	ATTTA	GCGGA	GGAAT	TTTCT
CAAAC	ATCGC	GAGCG	TGTGT	TCAAC	TTCAT
TGATC	AGAGT	ACCGG	CGAGA	GCTTC	CAGTG
TTAAA	TACGA	CCGCC	ATTAC	AGACA	GGTAA
CGTGG	GACTT	CGGTT	GATGT	GCAGG	AATTG
TAGAT	AAGAA	CATCA	ATGCA	CCCTC	ATGGT
GTGAC	ACTGC	CTGAG	CTATG		

Group 12:64:

```
TGCTT    GAGCA    ATATG    TTACA    GGATC    ACACG
CTCAT    CTGTC    AGAAT    TATTG    TTTTT    GCAAA
ATTAA    TACGT    GCCCT    AAGAC    ACCCA    GTCTA
CTAAA    AGTCG    ACCTC    CGCGA    GGTAT    CGAGT
CCTAG    GTCCC    TTCAC    GTGCG    TGGCC    TCGCT
TGTTC    TCAAT    GATGA    AGCTA    GGCAC    CTTCT
GCGGT    ACGAA    ATCGG    CCGGG    TGGAA    TGTGG
CGTTT    AAGGG    GAAAG    GAAGC    AAATA    GGGTG
CACCG    TCAGC    CCATG    GCTCC    CTTGC    CACTC
AATCC    TCCAG    AAGTT    CATAA    CAACC    TCTTA
TGACG    CGGAG    GTAGT    ACAGA
```

Group 13:64:

```
TTTGT    ATTAG    TAAGA    TCGAA    CGACA    ACGCC
AGAAA    GTAGA    AAGTC    CCTAT    GCGTA    CGTCC
ACCGT    TCTTG    GAATT    TCCCC    ATCCG    GCTGC
GTCAA    GATAA    GGTCG    TTCTC    TGGCT    AGGGG
GGGAC    CCATC    GTGGT    GTTTT    AACTA    TCGGC
AAACC    GGCCA    TGAGT    AATGA    CTCCT    GTGCC
CAGGC    TATAC    GACGG    AGGTT    AGCCC    TACAT
CAGAT    GCACG    GTGTG    GGCAT    CGCGG    TTTCA
CCCGA    AATCT    TGCAG    CTGAA    CGGTG    ACACT
CCCAC    TAGCG    CTAGG    CAAAG    TTAAC    ATTGC
GGAGC    ACCTG    TGTTA    GCTCT
```

Group 14:64:

```
CGGTC    GCTGG    GTCGC    TTTCC    TTGTA    CACAC
GCGTT    ACAAC    CGTCT    ACTCT    CGAAA    AGTTG
CTTGG    AGCTT    ACGTA    AGTGC    TGGAG    AGTCA
CTCCG    TTAGT    GTAAT    TTACG    ACGCG    ACAGT
TCATC    ATCGA    CCCAT    CCCGC    GCAAG    TGCCC
TTCAG    GAAGA    AAACG    TAACA    CAAAT    ATGAG
AATAA    ATATA    TGCGA    GGCAG    GCTAC    CTATC
CCGGA    CACCA    GAGAA    CTGCA    CAGGG    GGGGA
TACTT    GGTGT    CATTG    GGACC    GACTG    ATGCT
GAGCC    TATGG    TCCTG    TAGGC    AAGGT    AATTC
GTTTA    CTGAT    GGATT    TCTAA
```

Group 15:64:

AATTA	TAGTG	TATAG	GGGGT	GGTCC	TGAAA
CTTAA	AAGCT	CCCTG	CTGTG	GCCTT	CGAAG
CCTCG	ATGGG	TAACC	TTGGT	CATTT	CCATA
TAAGT	CGTGA	AGGGA	CTCAC	GGTTG	AGATC
TGTCT	ATCTT	GACAT	TCAGA	GGAGG	AAGAG .
AGGCG	GTTAT	TGCGG	CCCGT	TTTCG	CACGA
GAATC	ATACC	CAACT	GCACT	TTGAC	ACTGG
GCCAA	CCGAT	TGCTC	GTGCA	GCGAG	GACCG
GAGTA	TCGCC	AGCGT	TTTTA	TCCGC	TCTAT
CGGCC	CTAGC	GTATG	ATCCA	AACAC	ACAAT
TTTGC	ACCAG	ACGTC	AATGC		

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r300.0.0.out

5

Using pool D16
Using sequence r300

```
      True Signal: fp=CTCGA pool=7
10    True Signal: fp=CTACG pool=1
      True Signal: fp=CTACG pool=2
      True Signal: fp=GTACC pool=0
      True Signal: fp=ATCGC pool=1
      True Signal: fp=GAATG pool=15
15    True Signal: fp=ATCGG pool=13
      True Signal: fp=GTCGC pool=13
      True Signal: fp=ACCCA pool=14
      True Signal: fp=CTGGG pool=10
      True Signal: fp=CAATT pool=3
20    True Signal: fp=GACAA pool=1
      True Signal: fp=TACTA pool=3
      True Signal: fp=ACCCC pool=6
      True Signal: fp=AGACA pool=10
      True Signal: fp=TTCCA pool=8
25    True Signal: fp=TTCCA pool=4
      True Signal: fp=ACGCA pool=8
      True Signal: fp=GACAC pool=2
      True Signal: fp=CGACA pool=10
      True Signal: fp=CGACA pool=11
30    True Signal: fp=CTACT pool=10
      True Signal: fp=CCCCC pool=9
      True Signal: fp=CCCCC pool=14
      True Signal: fp=TTCCC pool=12
      True Signal: fp=GCCCA pool=1
35    True Signal: fp=GAGAA pool=8
      True Signal: fp=CCAGC pool=5
      True Signal: fp=CAGAG pool=3
      True Signal: fp=GCAGA pool=1
      True Signal: fp=GCAGC pool=12
40    True Signal: fp=CGCGA pool=3
      True Signal: fp=AGCGC pool=0
      True Signal: fp=GGACC pool=1
      True Signal: fp=CCAGG pool=7
      True Signal: fp=TTAGG pool=1
45    True Signal: fp=GAGAG pool=1
      True Signal: fp=TAAAA pool=11
      True Signal: fp=AGCGG pool=4
      True Signal: fp=ACTAA pool=15
```

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```
      True Signal: fp=CGGGC pool=4
      True Signal: fp=ACTAC pool=4
      True Signal: fp=ACTAC pool=7
      True Signal: fp=AGGGG pool=9
  5   True Signal: fp=AGGGG pool=5
      True Signal: fp=TTTAA pool=15
      True Signal: fp=GGGGC pool=7
      True Signal: fp=CAGAT pool=11
      True Signal: fp=CATGA pool=14
 10   True Signal: fp=AATGC pool=1
      True Signal: fp=CCCCT pool=13
      True Signal: fp=GACAT pool=4
      True Signal: fp=TCTTC pool=8
      True Signal: fp=CCAGT pool=10
 15   True Signal: fp=CCAGT pool=9
      True Signal: fp=GCTAC pool=9
      True Signal: fp=TTTAG pool=11
      True Signal: fp=TGAGA pool=12
      True Signal: fp=TGCCG pool=8
 20   True Signal: fp=GCGCT pool=15
      True Signal: fp=CGCGT pool=4
      True Signal: fp=TGAGG pool=7
      True Signal: fp=TCGGG pool=1
      True Signal: fp=CGGGT pool=8
 25   True Signal: fp=CGGGT pool=12
      True Signal: fp=GGCGT pool=12
      True Signal: fp=TATCA pool=4
      True Signal: fp=ATATC pool=2
      True Signal: fp=CTATC pool=6
 30   True Signal: fp=GGGGT pool=11
      True Signal: fp=GGGGT pool=14
      True Signal: fp=TATCG pool=3
      True Signal: fp=GCTAT pool=3
      True Signal: fp=GATGT pool=0
 35   True Signal: fp=TGGCT pool=6
      True Signal: fp=CTCAA pool=15
      True Signal: fp=ATCAG pool=6
      True Signal: fp=CGATA pool=8
      True Signal: fp=CTGAC pool=5
 40   True Signal: fp=GTATT pool=11
      True Signal: fp=ATGAG pool=8
      True Signal: fp=GCCTC pool=0
      True Signal: fp=GTGAA pool=2
      True Signal: fp=GCGTA pool=0
 45   True Signal: fp=GCGTA pool=9
      True Signal: fp=GCCTG pool=12
      True Signal: fp=GGATG pool=1
      True Signal: fp=GTGAG pool=0
```

```
      True Signal: fp=TTAAC pool=2
      True Signal: fp=AAAGC pool=1
      True Signal: fp=AAAGC pool=6
      True Signal: fp=AAGCC pool=8
5     True Signal: fp=CTCAT pool=8
      True Signal: fp=AGATT pool=12
      True Signal: fp=CAGCC pool=10
      True Signal: fp=CGCAC pool=4
      True Signal: fp=AAAGG pool=1
10    True Signal: fp=GACCC pool=9
      True Signal: fp=CCCTT pool=1
      True Signal: fp=CGATT pool=11
      True Signal: fp=GAAGC pool=5
      True Signal: fp=TCATG pool=1
15    True Signal: fp=AGGAC pool=15
      True Signal: fp=TGCTA pool=4
      True Signal: fp=GAAGG pool=10
      True Signal: fp=AATAA pool=2
      True Signal: fp=TGCTG pool=9
20    True Signal: fp=GGCAG pool=1
      True Signal: fp=GAGCG pool=3
      True Signal: fp=CTTGG pool=1
      True Signal: fp=ACAAT pool=6
      True Signal: fp=ACTCA pool=7
25    True Signal: fp=TCCAC pool=10
      True Signal: fp=AATAG pool=13
      True Signal: fp=GATAA pool=1
      True Signal: fp=TACGA pool=6
      True Signal: fp=TATTC pool=2
30    True Signal: fp=CCTCC pool=3
      True Signal: fp=TAACG pool=14
      True Signal: fp=AAGCT pool=12
      True Signal: fp=AAGCT pool=5
      True Signal: fp=ACTCG pool=15
35    True Signal: fp=CAGCT pool=9
      True Signal: fp=TCCAG pool=8
      True Signal: fp=TCCAG pool=2
      True Signal: fp=CGCAT pool=11
      True Signal: fp=TCGAC pool=9
40    True Signal: fp=TCGAC pool=13
      True Signal: fp=GCTCA pool=5
      True Signal: fp=AGGAT pool=8
      True Signal: fp=TAGGA pool=15
      True Signal: fp=AGTGA pool=14
45    True Signal: fp=TAGGC pool=13
      True Signal: fp=TACGG pool=7
      True Signal: fp=TAGGG pool=13
      True Signal: fp=AATAT pool=13
```

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```
          True Signal: fp=GGTGC pool=1
          True Signal: fp=GGTGC pool=4
          True Signal: fp=TCCAT pool=9
          True Signal: fp=TGAAT pool=10
 5        True Signal: fp=TATTT pool=6
          True Signal: fp=TGTCC pool=10
          True Signal: fp=AACTA pool=11
          True Signal: fp=AACTA pool=3
          True Signal: fp=CACTC pool=7
10        True Signal: fp=CTCCA pool=6
          True Signal: fp=AAGTA pool=7
          True Signal: fp=CAGTA pool=8
          True Signal: fp=GACTC pool=14
          True Signal: fp=GTCCA pool=3
 15       True Signal: fp=CTGCA pool=11
          True Signal: fp=ATAGG pool=12
      —True Signal: fp=GTAGA pool=8
      —True Signal: fp=GTAGA pool=9
          True Signal: fp=TGTCT pool=0
 20       True Signal: fp=CAGTG pool=15
          True Signal: fp=GTAGC pool=14
          True Signal: fp=GTGCC pool=10
          True Signal: fp=CAAAC pool=11
          True Signal: fp=GTAGG pool=3
 25       True Signal: fp=AAAAG pool=0
          True Signal: fp=AAAAG pool=2
          True Signal: fp=ACACG pool=5
          True Signal: fp=GAAAG pool=14
          True Signal: fp=CCCGA pool=15
30        True Signal: fp=AGCCC pool=10
          True Signal: fp=AGAGA pool=13
          True Signal: fp=ATGCT pool=6
          True Signal: fp=AGAGC pool=14
          True Signal: fp=GCTTA pool=9
35        True Signal: fp=AGGCC pool=12
          True Signal: fp=CGGCA pool=10
          True Signal: fp=GCCGA pool=7
          True Signal: fp=CCTTG pool=2
          True Signal: fp=GCTTC pool=5
40        True Signal: fp=TTCGC pool=10
          True Signal: fp=GCACG pool=10
          True Signal: fp=TTGGC pool=12
          True Signal: fp=GTGCT pool=9
          True Signal: fp=ACGGG pool=11
45        True Signal: fp=ACGGG pool=3
          True Signal: fp=GCGGC pool=11
        O True Signal: fp=TAGAA pool=15
          True Signal: fp=CCACT pool=13
```

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```
     True Signal:  fp=GGGCG pool=2
     True Signal:  fp=TCAGA pool=9
     True Signal:  fp=CGTAA pool=6
   — True Signal:  fp=TAGAC pool=11
 5   True Signal:  fp=CTTAT pool=13
     True Signal:  fp=AGCCT pool=0
     True Signal:  fp=CGTAC pool=7
     True Signal:  fp=CATCG pool=7
     True Signal:  fp=TCGCA pool=7
10   True Signal:  fp=TCCCG pool=11
     True Signal:  fp=AGTAG pool=9
     True Signal:  fp=AGGCT pool=10
     True Signal:  fp=GGCCT pool=8
     True Signal:  fp=TCGCG pool=5
  15 True Signal:  fp=GGTAG pool=10  —
     True Signal:  fp=GGTAG pool=3   —
     True Signal:  fp=GGGCT pool=8
     True Signal:  fp=TGGGG pool=1
     True Signal:  fp=AGTAT pool=0
  20 True Signal:  fp=ATGTC pool=9
     True Signal:  fp=TGACT pool=9
     True Signal:  fp=CTGTC pool=11
     True Signal:  fp=GTCTC pool=4
     True Signal:  fp=CTGTG pool=3
  25 True Signal:  fp=CTAAA pool=14
  ✗ True Signal:  fp=ACATC pool=13
     True Signal:  fp=GTAAA pool=13
     True Signal:  fp=ATAAG pool=13
     True Signal:  fp=AGCTA pool=4
30   True Signal:  fp=GTCTT pool=13
     True Signal:  fp=AGCTG pool=3
     True Signal:  fp=AGGTC pool=1
     True Signal:  fp=CGCTG pool=12
     True Signal:  fp=GGCTC pool=14
35   True Signal:  fp=AGGTG pool=8
     True Signal:  fp=GGGTA pool=10
     True Signal:  fp=GGGTA pool=15
     True Signal:  fp=GGCTG pool=2
     True Signal:  fp=GGGTC pool=10
40   True Signal:  fp=CGAAA pool=3
     True Signal:  fp=ATTCA pool=13
     True Signal:  fp=ATTCA pool=6
     True Signal:  fp=TTCAA pool=9
     True Signal:  fp=TTCAA pool=12
45   True Signal:  fp=AACGA pool=11
     True Signal:  fp=ACGAA pool=13
     True Signal:  fp=ATTCC pool=2
     True Signal:  fp=CCGAA pool=12
```

A43 -

```
     True Signal: fp=CCGAA pool=14
     True Signal: fp=CATTC pool=13
     True Signal: fp=CCATT pool=11
     True Signal: fp=GGGTG pool=6
  5  True Signal: fp=AGAAG pool=0
     True Signal: fp=CCCAG pool=3
     True Signal: fp=CCCAG pool=5
     True Signal: fp=CACGC pool=10
     True Signal: fp=CTTCC pool=14
 10  True Signal: fp=CTTCC pool=6
     True Signal: fp=TTATT pool=0
     True Signal: fp=GATTC pool=12
     True Signal: fp=GATTC pool=14
     True Signal: fp=CAGGA pool=15
 15  True Signal: fp=GCATT pool=15
     True Signal: fp=AGCTT pool=4
     True Signal: fp=ATTCG pool=9
     True Signal: fp=ATTCG pool=5
     True Signal: fp=CGAAG pool=14
 20  True Signal: fp=CACGG pool=9
     True Signal: fp=AAGGG pool=13
     True Signal: fp=GAGGC pool=11
     True Signal: fp=GGCTT pool=11
     True Signal: fp=AAACT pool=4
 25  True Signal: fp=TCAAA pool=4
     True Signal: fp=TCAAC pool=5
     True Signal: fp=CAACT pool=4
     True Signal: fp=AGAAT pool=10
     True Signal: fp=AATTT pool=8
 30  True Signal: fp=TACCC pool=5
     True Signal: fp=ACGAT pool=1
     True Signal: fp=CGAAT pool=12
     True Signal: fp=TAAGG pool=1
     True Signal: fp=AAGGT pool=9
 35  True Signal: fp=AAGGT pool=12
     True Signal: fp=GCTGA pool=12
     True Signal: fp=TGCAG pool=5
     True Signal: fp=TAGCG pool=5
     True Signal: fp=GCGAT pool=14
 40  True Signal: fp=GCTGC pool=10
     True Signal: fp=GCTGG pool=1
     True Signal: fp=GGTCG pool=0
     True Signal: fp=TCAAT pool=4
     True Signal: fp=TAAGT pool=2
 45  True Signal: fp=CCTGT pool=5
     True Signal: fp=TCTCG pool=12
     True Signal: fp=TGTGA pool=9
     True Signal: fp=GCTGT pool=2
```

Ā 44 -

```
        True Signal: fp=GGTCT pool=13
        True Signal: fp=CAATA pool=7
        True Signal: fp=GAATA pool=0
        True Signal: fp=GAATA pool=15
   5    True Signal: fp=ATTTA pool=1
        True Signal: fp=ATTTA pool=12        NOTE ≈ 700 NON-TRUE SIGNALS NOT SHOWN

        GGTAGGGGTA GACATCGCGT AAAAGGGGCG TACCCAGGAC CCCCCTTGGC TCAATAAGTA
        GCGCTGGGGT GCTACTACGG GTCTCGACAC GCATTCAACT AAAAGCTTCC ATTCGCACGG
  10    GCTTATTTAA CGAAGGTCGC GATAAGGTGC CGAATAGGCT GCAGAGCGGC AGCCTGTCCA
        GTGAATGCTG TGAGGCCTCC AGCTGACTCA TGAGAGAAGC CCAGTATTCA AACTACGATT
        CCACTCGACA ATTTAGGATG TCTTCCCGAA AGCTATCGGG TAGAATATCA GATTCGTTTA

        DotsOn=286

  15
        GGTAGGGGTA GACATCGCGT AAAAGGGGCG TACCCAGGAC CCCCCTTGGC TCAATAAGTA
        GCGCTGGGGT GCTACTACGG GTCTCGACAC GCATTCAACT AAAAGCTTCC ATTCGCACGG
        GCTTATTTAA CGAAGGTCGC GATAAGGTGC CGAATAGGCT GCAGAGCGGC AGCCTGTCCA
        GTGAATGCTG TGAGGCCTCC AGCTGACTCA TGAGAGAAGC CCAGTATTCA AACTACGATT
  20    CCACTCGACA ATTTAGGATG TCTTCCCGAA AGCTATCGGG TAGAATATCA GATTCGTTTG

        DotsOn=286

        GGTAGGGGTA GACATCGCGT AAAAGGGGCG TACCCAGGAC CCCCCTTGGC TCAATAAGTA
  25    GCGCTGGGGT GCTACTACGG GTCTCGACAC GCATTCAACT AAAAGCTTCC ATTCGCACGG
        GCTTATTTAA CGAAGGTCGC GATAAGGTGC CGAATAGGCT GCAGAGCGGC AGCCTGTCCA
        GTGAATGCTG TGAGGCCTCC AGCTGACTCA TGAGAGAAGC CCAGTATTCA AACTACGATT
        CCACTCGACA ATTTAGGATG TCTTCCCGAA AGCTATCGGG TAGAATATCA GATTCGTTTT

  30    DotsOn=286

        GTAGGGGTAG ACATCGCGTA AAAGGGGCGT ACCCAGGACC CCCCTTGGCT CAATAAGTAG
        CGCTGGGGTG CTACTACGGG TCTCGACACG CATTCAACTA AAAGCTTCCA TTCGCACGGG
        CTTATTTAAC GAAGGTCGCG ATAAGGTGCC GAATAGGCTG CAGAGCGGCA GCCTGTCCAG
  35    TGAATGCTGT GAGGCCTCCA GCTGACTCAT GAGAGAAGCC CAGTATTCAA ACTACGATTC
        CACTCGACAA TTTAGGATGT CTTCCCGAAA GCTATCGGGT AGAATATCAG ATTCGTTTAA

         True solution  DotsOn=286

  40    GTAGGGGTAG ACATCGCGTA AAAGGGGCGT ACCCAGGACC CCCCTTGGCT CAATAAGTAG
        CGCTGGGGTG CTACTACGGG TCTCGACACG CATTCAACTA AAAGCTTCCA TTCGCACGGG
        CTTATTTAAC GAAGGTCGCG ATAAGGTGCC GAATAGGCTG CAGAGCGGCA GCCTGTCCAG
        TGAATGCTGT GAGGCCTCCA GCTGACTCAT GAGAGAAGCC CAGTATTCAA ACTACGATTC
        CACTCGACAA TTTAGGATGT CTTCCCGAAA GCTATCGGGT AGAATATCAG ATTCGTTTTG
  45
        DotsOn=286

        Solutions: 5
```

A45 -

r300.100.0.out

Using pool D16
Using sequence r300

True Signal: fp=CTCGA pool=7
True Signal: fp=CTACG pool=1
True Signal: fp=CTACG pool=2
True Signal: fp=GTACC pool=0
True Signal: fp=ATCGC pool=1
True Signal: fp=GAATG pool=15
True Signal: fp=ATCGG pool=13
True Signal: fp=GTCGC pool=13
True Signal: fp=ACCCA pool=14
True Signal: fp=CTGGG pool=10
True Signal: fp=CAATT pool=3
True Signal: fp=GACAA pool=1
True Signal: fp=TACTA pool=3
True Signal: fp=ACCCC pool=6
True Signal: fp=AGACA pool=10
True Signal: fp=TTCCA pool=8
True Signal: fp=TTCCA pool=4
True Signal: fp=ACGCA pool=8
True Signal: fp=GACAC pool=2
True Signal: fp=CGACA pool=10
True Signal: fp=CGACA pool=11
True Signal: fp=CTACT pool=10
True Signal: fp=CCCCC pool=9
True Signal: fp=CCCCC pool=14
True Signal: fp=TTCCC pool=12
True Signal: fp=GCCCA pool=1
True Signal: fp=GAGAA pool=8
True Signal: fp=CCAGC pool=5
True Signal: fp=CAGAG pool=3
True Signal: fp=GCAGA pool=1
True Signal: fp=GCAGC pool=12
True Signal: fp=CGCGA pool=3
True Signal: fp=AGCGC pool=0
True Signal: fp=GGACC pool=1
True Signal: fp=CCAGG pool=7
True Signal: fp=TTAGG pool=1
True Signal: fp=GAGAG pool=1
True Signal: fp=TAAAA pool=11
True Signal: fp=AGCGG pool=4
True Signal: fp=ACTAA pool=15
True Signal: fp=CGGGC pool=4
True Signal: fp=ACTAC pool=4
True Signal: fp=ACTAC pool=7

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A46-

```
         True Signal: fp=AGGGG pool=9
         True Signal: fp=AGGGG pool=5
         True Signal: fp=TTTAA pool=15
         True Signal: fp=GGGGC pool=7
   5     True Signal: fp=CAGAT pool=11
         True Signal: fp=CATGA pool=14
         True Signal: fp=AATGC pool=1
         True Signal: fp=CCCCT pool=13
         True Signal: fp=GACAT pool=4
  10     True Signal: fp=TCTTC pool=8
         True Signal: fp=CCAGT pool=10
         True Signal: fp=CCAGT pool=9
         True Signal: fp=GCTAC pool=9
         True Signal: fp=TTTAG pool=11
  15     True Signal: fp=TGAGA pool=12
         True Signal: fp=TGCCG pool=8
         True Signal: fp=GCGCT pool=15
         True Signal: fp=CGCGT pool=4
         True Signal: fp=TGAGG pool=7
  20     True Signal: fp=TCGGG pool=1
         True Signal: fp=CGGGT pool=8
         True Signal: fp=CGGGT pool=12
         True Signal: fp=GGCGT pool=12
         True Signal: fp=TATCA pool=4
  25     True Signal: fp=ATATC pool=2
         True Signal: fp=CTATC pool=6
         True Signal: fp=GGGGT pool=11
         True Signal: fp=GGGGT pool=14
         True Signal: fp=TATCG pool=3
  30     True Signal: fp=GCTAT pool=3
         True Signal: fp=GATGT pool=0
         True Signal: fp=TGGCT pool=6
         True Signal: fp=CTCAA pool=15
         True Signal: fp=ATCAG pool=6
  35     True Signal: fp=CGATA pool=8
         True Signal: fp=CTGAC pool=5
         True Signal: fp=GTATT pool=11
         True Signal: fp=ATGAG pool=8
         True Signal: fp=GCCTC pool=0
  40     True Signal: fp=GTGAA pool=2
         True Signal: fp=GCGTA pool=0
         True Signal: fp=GCGTA pool=9
         True Signal: fp=GCCTG pool=12
         True Signal: fp=GGATG pool=1
  45     True Signal: fp=GTGAG pool=0
         True Signal: fp=TTAAC pool=2
         True Signal: fp=AAAGC pool=1
         True Signal: fp=AAAGC pool=6
```

A47 -

```
      True Signal: fp=AAGCC pool=8
      True Signal: fp=CTCAT pool=8
      True Signal: fp=AGATT pool=12
      True Signal: fp=CAGCC pool=10
  5   True Signal: fp=CGCAC pool=4
      True Signal: fp=AAAGG pool=1
      True Signal: fp=GACCC pool=9
      True Signal: fp=CCCTT pool=1
      True Signal: fp=CGATT pool=11
 10   True Signal: fp=GAAGC pool=5
      True Signal: fp=TCATG pool=1
      True Signal: fp=AGGAC pool=15
      True Signal: fp=TGCTA pool=4
      True Signal: fp=GAAGG pool=10
 15   True Signal: fp=AATAA pool=2
      True Signal: fp=TGCTG pool=9
      True Signal: fp=GGCAG pool=1
      True Signal: fp=GAGCG pool=3
      True Signal: fp=CTTGG pool=1
 20   True Signal: fp=ACAAT pool=6
      True Signal: fp=ACTCA pool=7
      True Signal: fp=TCCAC pool=10
      True Signal: fp=AATAG pool=13
      True Signal: fp=GATAA pool=1
 25   True Signal: fp=TACGA pool=6
      True Signal: fp=TATTC pool=2
      True Signal: fp=CCTCC pool=3
      True Signal: fp=TAACG pool=14
      True Signal: fp=AAGCT pool=12
 30   True Signal: fp=AAGCT pool=5
      True Signal: fp=ACTCG pool=15
      True Signal: fp=CAGCT pool=9
      True Signal: fp=TCCAG pool=8
      True Signal: fp=TCCAG pool=2
 35   True Signal: fp=CGCAT pool=11
      True Signal: fp=TCGAC pool=9
      True Signal: fp=TCGAC pool=13
      True Signal: fp=GCTCA pool=5
      True Signal: fp=AGGAT pool=8
 40   True Signal: fp=TAGGA pool=15
      True Signal: fp=AGTGA pool=14
      True Signal: fp=TAGGC pool=13
      True Signal: fp=TACGG pool=7
      True Signal: fp=TAGGG pool=13
 45   True Signal: fp=AATAT pool=13
      True Signal: fp=GGTGC pool=1
      True Signal: fp=GGTGC pool=4
      True Signal: fp=TCCAT pool=9
```

A48 -

```
     True Signal: fp=TGAAT pool=10
     True Signal: fp=TATTT pool=6
     True Signal: fp=TGTCC pool=10
     True Signal: fp=AACTA pool=11
5    True Signal: fp=AACTA pool=3
     True Signal: fp=CACTC pool=7
     True Signal: fp=CTCCA pool=6
     True Signal: fp=AAGTA pool=7
     True Signal: fp=CAGTA pool=8
10   True Signal: fp=GACTC pool=14
     True Signal: fp=GTCCA pool=3
     True Signal: fp=CTGCA pool=11
     True Signal: fp=ATAGG pool=12
     True Signal: fp=GTAGA pool=8
15   True Signal: fp=GTAGA pool=9
     True Signal: fp=TGTCT pool=0
     True Signal: fp=CAGTG pool=15
     True Signal: fp=GTAGC pool=14
     True Signal: fp=GTGCC pool=10
20   True Signal: fp=CAAAC pool=11
     True Signal: fp=GTAGG pool=3
     True Signal: fp=AAAAG pool=0
     True Signal: fp=AAAAG pool=2
     True Signal: fp=ACACG pool=5
25   True Signal: fp=GAAAG pool=14
     True Signal: fp=CCCGA pool=15
     True Signal: fp=AGCCC pool=10
     True Signal: fp=AGAGA pool=13
     True Signal: fp=ATGCT pool=6
30   True Signal: fp=AGAGC pool=14
     True Signal: fp=GCTTA pool=9
     True Signal: fp=AGGCC pool=12
     True Signal: fp=CGGCA pool=10
     True Signal: fp=GCCGA pool=7
35   True Signal: fp=CCTTG pool=2
     True Signal: fp=GCTTC pool=5
     True Signal: fp=TTCGC pool=10
     True Signal: fp=GCACG pool=10
     True Signal: fp=TTGGC pool=12
40   True Signal: fp=GTGCT pool=9
     True Signal: fp=ACGGG pool=11
     True Signal: fp=ACGGG pool=3
     True Signal: fp=GCGGC pool=11
     True Signal: fp=TAGAA pool=15
45   True Signal: fp=CCACT pool=13
     True Signal: fp=GGGCG pool=2
     True Signal: fp=TCAGA pool=9
     True Signal: fp=CGTAA pool=6
```

_A_ 49 -

CA1 - 206444.1

```
     True Signal: fp=TAGAC pool=11
     True Signal: fp=CTTAT pool=13
     True Signal: fp=AGCCT pool=0
     True Signal: fp=CGTAC pool=7
5    True Signal: fp=CATCG pool=7
     True Signal: fp=TCGCA pool=7
     True Signal: fp=TCCCG pool=11
     True Signal: fp=AGTAG pool=9
     True Signal: fp=AGGCT pool=10
10   True Signal: fp=GGCCT pool=8
     True Signal: fp=TCGCG pool=5
     True Signal: fp=GGTAG pool=10
     True Signal: fp=GGTAG pool=3
     True Signal: fp=GGGCT pool=8
15   True Signal: fp=TGGGG pool=1
     True Signal: fp=AGTAT pool=0
     True Signal: fp=ATGTC pool=9
     True Signal: fp=TGACT pool=9
     True Signal: fp=CTGTC pool=11
20   True Signal: fp=GTCTC pool=4
     True Signal: fp=CTGTG pool=3
     True Signal: fp=CTAAA pool=14
     True Signal: fp=ACATC pool=13
     True Signal: fp=GTAAA pool=13
25   True Signal: fp=ATAAG pool=13
     True Signal: fp=AGCTA pool=4
     True Signal: fp=GTCTT pool=13
     True Signal: fp=AGCTG pool=3
     True Signal: fp=AGGTC pool=1
30   True Signal: fp=CGCTG pool=12
     True Signal: fp=GGCTC pool=14
     True Signal: fp=AGGTG pool=8
     True Signal: fp=GGGTA pool=10
     True Signal: fp=GGGTA pool=15
35   True Signal: fp=GGCTG pool=2
     True Signal: fp=GGGTC pool=10
     True Signal: fp=CGAAA pool=3
     True Signal: fp=ATTCA pool=13
     True Signal: fp=ATTCA pool=6
40   True Signal: fp=TTCAA pool=9
     True Signal: fp=TTCAA pool=12
     True Signal: fp=AACGA pool=11
     True Signal: fp=ACGAA pool=13
     True Signal: fp=ATTCC pool=2
45   True Signal: fp=CCGAA pool=12
     True Signal: fp=CCGAA pool=14
     True Signal: fp=CATTC pool=13
     True Signal: fp=CCATT pool=11
```

```
         True Signal: fp=GGGTG pool=6
         True Signal: fp=AGAAG pool=0
         True Signal: fp=CCCAG pool=3
         True Signal: fp=CCCAG pool=5
   5     True Signal: fp=CACGC pool=10
         True Signal: fp=CTTCC pool=14
         True Signal: fp=CTTCC pool=6
         True Signal: fp=TTATT pool=0
         True Signal: fp=GATTC pool=12
  10     True Signal: fp=GATTC pool=14
         True Signal: fp=CAGGA pool=15
         True Signal: fp=GCATT pool=15
         True Signal: fp=AGCTT pool=4
         True Signal: fp=ATTCG pool=9
  15     True Signal: fp=ATTCG pool=5
         True Signal: fp=CGAAG pool=14
         True Signal: fp=CACGG pool=9
         True Signal: fp=AAGGG pool=13
         True Signal: fp=GAGGC pool=11
  20     True Signal: fp=GGCTT pool=11
         True Signal: fp=AAACT pool=4
         True Signal: fp=TCAAA pool=4
         True Signal: fp=TCAAC pool=5
         True Signal: fp=CAACT pool=4
  25     True Signal: fp=AGAAT pool=10
         True Signal: fp=AATTT pool=8
         True Signal: fp=TACCC pool=5
         True Signal: fp=ACGAT pool=1
         True Signal: fp=CGAAT pool=12
  30     True Signal: fp=TAAGG pool=1
         True Signal: fp=AAGGT pool=9
         True Signal: fp=AAGGT pool=12
         True Signal: fp=GCTGA pool=12
         True Signal: fp=TGCAG pool=5
  35     True Signal: fp=TAGCG pool=5
         True Signal: fp=GCGAT pool=14
         True Signal: fp=GCTGC pool=10
         True Signal: fp=GCTGG pool=1
         True Signal: fp=GGTCG pool=0
  40     True Signal: fp=TCAAT pool=4
         True Signal: fp=TAAGT pool=2
         True Signal: fp=CCTGT pool=5
         True Signal: fp=TCTCG pool=12
         True Signal: fp=TGTGA pool=9
  45     True Signal: fp=GCTGT pool=2
         True Signal: fp=GGTCT pool=13
         True Signal: fp=CAATA pool=7
         True Signal: fp=GAATA pool=0
```

A51 -

```
      True Signal: fp=GAATA pool=15
      True Signal: fp=ATTTA pool=1
      True Signal: fp=ATTTA pool=12
      False positive Signal: fp=CTCTG pool=11
  5   False positive Signal: fp=AACAT pool=6
      False positive Signal: fp=GTGTC pool=0
      False positive Signal: fp=GTACT pool=0
      False positive Signal: fp=GAGAT pool=14
      False positive Signal: fp=GGTTG pool=9
 10   False positive Signal: fp=CTTTT pool=6
      False positive Signal: fp=AGTAA pool=8
      False positive Signal: fp=GCGGC pool=11
      False positive Signal: fp=ATATA pool=11
      False positive Signal: fp=CAAGA pool=9
 15   False positive Signal: fp=GGGTT pool=10
      False positive Signal: fp=CACCT pool=1
      False positive Signal: fp=AAATA pool=0
      False positive Signal: fp=AGCAT pool=6
      False positive Signal: fp=GTGAT pool=11
 20   False positive Signal: fp=GGTAG pool=6
      False positive Signal: fp=GACTT pool=3
      False positive Signal: fp=CCGGA pool=14
      False positive Signal: fp=CGATC pool=15
      False positive Signal: fp=CTTGT pool=0
 25   False positive Signal: fp=CGGCC pool=6
      False positive Signal: fp=GCGGA pool=5
      False positive Signal: fp=ACATA pool=9
      False positive Signal: fp=TGATA pool=9
      False positive Signal: fp=ATAGC pool=10
 30   False positive Signal: fp=CTGGT pool=10
      False positive Signal: fp=ATCCC pool=8
      False positive Signal: fp=ATTAG pool=6
      False positive Signal: fp=AGCTA pool=5
      False positive Signal: fp=GGCGG pool=12
 35   False positive Signal: fp=TATCA pool=1
      False positive Signal: fp=TCAGG pool=4
      False positive Signal: fp=GATAG pool=9
      False positive Signal: fp=TTGGT pool=2
      False positive Signal: fp=TGACG pool=9
 40   False positive Signal: fp=CCCTC pool=0
      False positive Signal: fp=AGATG pool=10
      False positive Signal: fp=CCGGC pool=14
      False positive Signal: fp=TATAT pool=11
      False positive Signal: fp=CATTA pool=14
 45   False positive Signal: fp=GAGTA pool=10
      False positive Signal: fp=TATAA pool=11
      False positive Signal: fp=CGGTG pool=11
      False positive Signal: fp=CCCTA pool=10
```

```
        False positive Signal: fp=GCATA pool=14
        False positive Signal: fp=TGGTC pool=0
        False positive Signal: fp=AGGTT pool=11
        False positive Signal: fp=CATAC pool=15
   5    False positive Signal: fp=TCAGC pool=10
        False positive Signal: fp=GGACT pool=12
        False positive Signal: fp=TGCTC pool=13
        False positive Signal: fp=CCATA pool=1
        False positive Signal: fp=AATTA pool=13
  10    False positive Signal: fp=GCGAA pool=15
        False positive Signal: fp=ACCGG pool=11
        False positive Signal: fp=GTTCA pool=2
        False positive Signal: fp=AGTAC pool=7
        False positive Signal: fp=GAGTC pool=6
  15    False positive Signal: fp=GTGCT pool=12
        False positive Signal: fp=TCACT pool=9
        False positive Signal: fp=CTACA pool=8
        False positive Signal: fp=GACGA pool=2
        False positive Signal: fp=GGTCG pool=9
  20    False positive Signal: fp=CTCAA pool=15
        False positive Signal: fp=TCACT pool=15
        False positive Signal: fp=AGATC pool=12
        False positive Signal: fp=GTCGG pool=10
        False positive Signal: fp=GGGGA pool=5
  25    False positive Signal: fp=TGGAG pool=1
        False positive Signal: fp=GGAGT pool=9
        False positive Signal: fp=TGCCA pool=7
        False positive Signal: fp=AAATC pool=13
        False positive Signal: fp=ACCGT pool=9
  30    False positive Signal: fp=GACGC pool=8
        False positive Signal: fp=TAAGT pool=4
        False positive Signal: fp=TGACC pool=10
        False positive Signal: fp=GGATC pool=11
        False positive Signal: fp=GAAGG pool=7
  35    False positive Signal: fp=CGATT pool=10
        False positive Signal: fp=GCTAG pool=10
        False positive Signal: fp=GTGGC pool=12
        False positive Signal: fp=GAATC pool=13
        False positive Signal: fp=CCATG pool=4
  40    False positive Signal: fp=GATCA pool=10
        False positive Signal: fp=CAGTA pool=3
        False positive Signal: fp=CAACT pool=4
        False positive Signal: fp=CGCCA pool=2
        False positive Signal: fp=TATAG pool=1
  45    False positive Signal: fp=TACTG pool=1
        False positive Signal: fp=AAAGC pool=4
        False positive Signal: fp=CGACG pool=14
        False positive Signal: fp=GTACT pool=3
```

A 53 -

```
False positive Signal: fp=TAATG pool=7
False positive Signal: fp=CGCAC pool=10
False positive Signal: fp=GCCTC pool=0
False positive Signal: fp=AATTT pool=1
False positive Signal: fp=CTCAC pool=14
False positive Signal: fp=AGTCA pool=12
False positive Signal: fp=CAGAT pool=14
10mers:24448
11mers:3459
12mers:744
13mers:386
14mers:344
15mers:337
16mers:336
17mers:333
18mers:330
19mers:327
20mers:325
21mers:324
22mers:326
23mers:322
24mers:322
25mers:320
26mers:319
27mers:319
28mers:320
29mers:316
30mers:314
31mers:313
32mers:310
33mers:309
34mers:307
35mers:306
36mers:305
37mers:303
38mers:302
39mers:304
40mers:302
41mers:302
42mers:300
43mers:299
44mers:298
45mers:297
46mers:295
47mers:295
48mers:293
49mers:291
50mers:289
```

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A 54 -

```
          51mers:289
          52mers:285
          53mers:284
          54mers:285
    5     55mers:283
          56mers:282
          57mers:282
          58mers:280
          59mers:278
   10     60mers:279
          61mers:276
          62mers:276
          63mers:275
          64mers:274
   15     65mers:272
          66mers:274
          67mers:271
          68mers:269
          69mers:268
   20     70mers:267
          71mers:266
          72mers:265
          73mers:264
          74mers:261
   25     75mers:260
          76mers:259
          77mers:260
          78mers:259
          79mers:257
   30     80mers:255
          81mers:255
          82mers:253
          83mers:253
          84mers:253
   35     85mers:251
          86mers:249
          87mers:248
          88mers:247
          89mers:248
   40     90mers:250
          91mers:247
          92mers:246
          93mers:244
          94mers:243
   45     95mers:241
          96mers:238
          97mers:237
          98mers:237
```

A55 -

```
99mers:236
100mers:234
101mers:234
102mers:236
5       103mers:234
104mers:230
105mers:230
106mers:229
107mers:227
10      108mers:225
109mers:226
110mers:224
111mers:223
112mers:221
15      113mers:219
114mers:219
115mers:217
116mers:215
117mers:215
20      118mers:216
119mers:213
120mers:212
121mers:210
122mers:208
25      123mers:207
124mers:207
125mers:204
126mers:203
127mers:202
30      128mers:201
129mers:201
130mers:199
131mers:198
132mers:197
35      133mers:197
134mers:195
135mers:195
136mers:194
137mers:192
40      138mers:191
139mers:190
140mers:190
141mers:190
142mers:188
45      143mers:186
144mers:186
145mers:185
146mers:184
```

```
147mers:182
148mers:181
149mers:180
150mers:181
5        151mers:178
152mers:177
153mers:176
154mers:174
155mers:173
10       156mers:172
157mers:172
158mers:171
159mers:170
160mers:167
15       161mers:167
162mers:165
163mers:165
164mers:164
165mers:166
20       166mers:164
167mers:161
168mers:159
169mers:159
170mers:157
25       171mers:156
172mers:156
173mers:156
174mers:153
175mers:152
30       176mers:154
177mers:152
178mers:150
179mers:148
180mers:148
35       181mers:146
182mers:145
183mers:144
184mers:144
185mers:143
40       186mers:141
187mers:141
188mers:139
189mers:136
190mers:136
45       191mers:137
192mers:135
193mers:132
194mers:131
```

```
195mers:130
196mers:130
197mers:129
198mers:127
5      199mers:127
200mers:126
201mers:125
202mers:125
203mers:125
10     204mers:121
205mers:120
206mers:120
207mers:120
208mers:117
15     209mers:115
210mers:114
211mers:114
212mers:112
213mers:113
20     214mers:113
215mers:111
216mers:108
217mers:109
218mers:107
25     219mers:106
220mers:106
221mers:102
222mers:101
223mers:102
30     224mers:102
225mers:98
226mers:100
227mers:96
228mers:95
35     229mers:94
230mers:93
231mers:91
232mers:92
233mers:89
40     234mers:86
235mers:85
236mers:85
237mers:83
238mers:82
45     239mers:83
240mers:79
241mers:80
242mers:78
```

A 58 -

```
       243mers:77
       244mers:74
       245mers:73
       246mers:72
  5    247mers:72
       248mers:69
       249mers:69
       250mers:69
       251mers:67
 10    252mers:66
       253mers:66
       254mers:65
       255mers:62
       256mers:61
 15    257mers:59
       258mers:61
       259mers:58
       260mers:56
       261mers:55
 20    262mers:54
       263mers:52
       264mers:53
       265mers:53
       266mers:52
 25    267mers:48
       268mers:46
       269mers:46
       270mers:45
       271mers:45
 30    272mers:42
       273mers:41
       274mers:38
       275mers:37
       276mers:36
 35    277mers:35
       278mers:34
       279mers:32
       280mers:30
       281mers:27
 40    282mers:26
       283mers:26
       284mers:25
       285mers:24
       286mers:22
 45    287mers:21
       288mers:19
       289mers:17
       290mers:17
```

A 59 -

```
        291mers:15
        292mers:14
        293mers:12
        294mers:10
  5     295mers:9
        296mers:8
        297mers:7
        298mers:6
        299mers:5
 10     300mers:3

        GTAGGGGTAG ACATCGCGTA AAAGGGGCGT ACCCAGGACC CCCCTTGGCT CAATAAGTAG
        CGCTGGGGTG CTACTACGGG TCTCGACACG CATTCAACTA AAAGCTTCCA TTCGCACGGG
        CTTATTTAAC GAAGGTCGCG ATAAGGTGCC GAATAGGCTG CAGAGCGGCA GCCTGTCCAG
 15     TGAATGCTGT GAGGCCTCCA GCTGACTCAT GAGAGAAGCC CAGTATTCAA ACTACGATTC
        CACTCGACAA TTTAGGATGT CTTCCCGAAA GCTATCGGGT AGAATATCAG ATTCGTTTAA

        True solution   DotsOn=286

 20     GGTAGGGGTA GACATCGCGT AAAAGGGGCG TACCCAGGAC CCCCCTTGGC TCAATAAGTA
        GCGCTGGGGT GCTACTACGG GTCTCGACAC GCATTCAACT AAAAGCTTCC ATTCGCACGG
        GCTTATTTAA CGAAGGTCGC GATAAGGTGC CGAATAGGCT GCAGAGCGGC AGCCTGTCCA
        GTGAATGCTG TGAGGCCTCC AGCTGACTCA TGAGAGAAGC CCAGTATTCA AACTACGATT
        CCACTCGACA ATTTAGGATG TCTTCCCGAA AGCTATCGGG TAGAATATCA GATTCGTTTA
 25

        DotsOn=286

        Solutions: 2
```

r300.300.0.out

Using pool D16
Using sequence r300

True Signal: fp=CTCGA pool=7
True Signal: fp=CTACG pool=1
True Signal: fp=CTACG pool=2
True Signal: fp=GTACC pool=0
True Signal: fp=ATCGC pool=1
True Signal: fp=GAATG pool=15
True Signal: fp=ATCGG pool=13
True Signal: fp=GTCGC pool=13
True Signal: fp=ACCCA pool=14
True Signal: fp=CTGGG pool=10
True Signal: fp=CAATT pool=3
True Signal: fp=GACAA pool=1
True Signal: fp=TACTA pool=3
True Signal: fp=ACCCC pool=6
True Signal: fp=AGACA pool=10
True Signal: fp=TTCCA pool=8
True Signal: fp=TTCCA pool=4
True Signal: fp=ACGCA pool=8
True Signal: fp=GACAC pool=2
True Signal: fp=CGACA pool=10
True Signal: fp=CGACA pool=11
True Signal: fp=CTACT pool=10
True Signal: fp=CCCCC pool=9
True Signal: fp=CCCCC pool=14
True Signal: fp=TTCCC pool=12
True Signal: fp=GCCCA pool=1
True Signal: fp=GAGAA pool=8
True Signal: fp=CCAGC pool=5
True Signal: fp=CAGAG pool=3
True Signal: fp=GCAGA pool=1
True Signal: fp=GCAGC pool=12
True Signal: fp=CGCGA pool=3
True Signal: fp=AGCGC pool=0
True Signal: fp=GGACC pool=1
True Signal: fp=CCAGG pool=7
True Signal: fp=TTAGG pool=1
True Signal: fp=GAGAG pool=1
True Signal: fp=TAAAA pool=11
True Signal: fp=AGCGG pool=4
True Signal: fp=ACTAA pool=15
True Signal: fp=CGGGC pool=4
True Signal: fp=ACTAC pool=4
True Signal: fp=ACTAC pool=7

A 61 -

```
     True Signal: fp=AGGGG pool=9
     True Signal: fp=AGGGG pool=5
     True Signal: fp=TTTAA pool=15
     True Signal: fp=GGGGC pool=7
  5  True Signal: fp=CAGAT pool=11
     True Signal: fp=CATGA pool=14
     True Signal: fp=AATGC pool=1
     True Signal: fp=CCCCT pool=13
     True Signal: fp=GACAT pool=4
 10  True Signal: fp=TCTTC pool=8
     True Signal: fp=CCAGT pool=10
     True Signal: fp=CCAGT pool=9
     True Signal: fp=GCTAC pool=9
     True Signal: fp=TTTAG pool=11
 15  True Signal: fp=TGAGA pool=12
     True Signal: fp=TGCCG pool=8
     True Signal: fp=GCGCT pool=15
     True Signal: fp=CGCGT pool=4
     True Signal: fp=TGAGG pool=7
 20  True Signal: fp=TCGGG pool=1
     True Signal: fp=CGGGT pool=8
     True Signal: fp=CGGGT pool=12
     True Signal: fp=GGCGT pool=12
     True Signal: fp=TATCA pool=4
 25  True Signal: fp=ATATC pool=2
     True Signal: fp=CTATC pool=6
     True Signal: fp=GGGGT pool=11
     True Signal: fp=GGGGT pool=14
     True Signal: fp=TATCG pool=3
 30  True Signal: fp=GCTAT pool=3
     True Signal: fp=GATGT pool=0
     True Signal: fp=TGGCT pool=6
     True Signal: fp=CTCAA pool=15
     True Signal: fp=ATCAG pool=6
 35  True Signal: fp=CGATA pool=8
     True Signal: fp=CTGAC pool=5
     True Signal: fp=GTATT pool=11
     True Signal: fp=ATGAG pool=8
     True Signal: fp=GCCTC pool=0
 40  True Signal: fp=GTGAA pool=2
     True Signal: fp=GCGTA pool=0
     True Signal: fp=GCGTA pool=9
     True Signal: fp=GCCTG pool=12
     True Signal: fp=GGATG pool=1
 45  True Signal: fp=GTGAG pool=0
     True Signal: fp=TTAAC pool=2
     True Signal: fp=AAAGC pool=1
     True Signal: fp=AAAGC pool=6
```

A 62 -

```
        True Signal: fp=AAGCC pool=8
        True Signal: fp=CTCAT pool=8
        True Signal: fp=AGATT pool=12
        True Signal: fp=CAGCC pool=10
  5     True Signal: fp=CGCAC pool=4
        True Signal: fp=AAAGG pool=1
        True Signal: fp=GACCC pool=9
        True Signal: fp=CCCTT pool=1
        True Signal: fp=CGATT pool=11
 10     True Signal: fp=GAAGC pool=5
        True Signal: fp=TCATG pool=1
        True Signal: fp=AGGAC pool=15
        True Signal: fp=TGCTA pool=4
        True Signal: fp=GAAGG pool=10
 15     True Signal: fp=AATAA pool=2
        True Signal: fp=TGCTG pool=9
        True Signal: fp=GGCAG pool=1
        True Signal: fp=GAGCG pool=3
        True Signal: fp=CTTGG pool=1
 20     True Signal: fp=ACAAT pool=6
        True Signal: fp=ACTCA pool=7
        True Signal: fp=TCCAC pool=10
        True Signal: fp=AATAG pool=13
        True Signal: fp=GATAA pool=1
 25     True Signal: fp=TACGA pool=6
        True Signal: fp=TATTC pool=2
        True Signal: fp=CCTCC pool=3
        True Signal: fp=TAACG pool=14
        True Signal: fp=AAGCT pool=12
 30     True Signal: fp=AAGCT pool=5
        True Signal: fp=ACTCG pool=15
        True Signal: fp=CAGCT pool=9
        True Signal: fp=TCCAG pool=8
        True Signal: fp=TCCAG pool=2
 35     True Signal: fp=CGCAT pool=11
        True Signal: fp=TCGAC pool=9
        True Signal: fp=TCGAC pool=13
        True Signal: fp=GCTCA pool=5
        True Signal: fp=AGGAT pool=8
 40     True Signal: fp=TAGGA pool=15
        True Signal: fp=AGTGA pool=14
        True Signal: fp=TAGGC pool=13
        True Signal: fp=TACGG pool=7
        True Signal: fp=TAGGG pool=13
 45     True Signal: fp=AATAT pool=13
        True Signal: fp=GGTGC pool=1
        True Signal: fp=GGTGC pool=4
        True Signal: fp=TCCAT pool=9
```

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```
     True Signal: fp=TGAAT pool=10
     True Signal: fp=TATTT pool=6
     True Signal: fp=TGTCC pool=10
     True Signal: fp=AACTA pool=11
  5  True Signal: fp=AACTA pool=3
     True Signal: fp=CACTC pool=7
     True Signal: fp=CTCCA pool=6
     True Signal: fp=AAGTA pool=7
     True Signal: fp=CAGTA pool=8
 10  True Signal: fp=GACTC pool=14
     True Signal: fp=GTCCA pool=3
     True Signal: fp=CTGCA pool=11
     True Signal: fp=ATAGG pool=12
     True Signal: fp=GTAGA pool=8
 15  True Signal: fp=GTAGA pool=9
     True Signal: fp=TGTCT pool=0
     True Signal: fp=CAGTG pool=15
     True Signal: fp=GTAGC pool=14
     True Signal: fp=GTGCC pool=10
 20  True Signal: fp=CAAAC pool=11
     True Signal: fp=GTAGG pool=3
     True Signal: fp=AAAAG pool=0
     True Signal: fp=AAAAG pool=2
     True Signal: fp=ACACG pool=5
 25  True Signal: fp=GAAAG pool=14
     True Signal: fp=CCCGA pool=15
     True Signal: fp=AGCCC pool=10
     True Signal: fp=AGAGA pool=13
     True Signal: fp=ATGCT pool=6
 30  True Signal: fp=AGAGC pool=14
     True Signal: fp=GCTTA pool=9
     True Signal: fp=AGGCC pool=12
     True Signal: fp=CGGCA pool=10
     True Signal: fp=GCCGA pool=7
 35  True Signal: fp=CCTTG pool=2
     True Signal: fp=GCTTC pool=5
     True Signal: fp=TTCGC pool=10
     True Signal: fp=GCACG pool=10
     True Signal: fp=TTGGC pool=12
 40  True Signal: fp=GTGCT pool=9
     True Signal: fp=ACGGG pool=11
     True Signal: fp=ACGGG pool=3
     True Signal: fp=GCGGC pool=11
     True Signal: fp=TAGAA pool=15
 45  True Signal: fp=CCACT pool=13
     True Signal: fp=GGGCG pool=2
     True Signal: fp=TCAGA pool=9
     True Signal: fp=CGTAA pool=6
```

```
        True Signal: fp=TAGAC pool=11
        True Signal: fp=CTTAT pool=13
        True Signal: fp=AGCCT pool=0
        True Signal: fp=CGTAC pool=7
  5     True Signal: fp=CATCG pool=7
        True Signal: fp=TCGCA pool=7
        True Signal: fp=TCCCG pool=11
        True Signal: fp=AGTAG pool=9
        True Signal: fp=AGGCT pool=10
  10    True Signal: fp=GGCCT pool=8
        True Signal: fp=TCGCG pool=5
        True Signal: fp=GGTAG pool=10
        True Signal: fp=GGTAG pool=3
        True Signal: fp=GGGCT pool=8
  15    True Signal: fp=TGGGG pool=1
        True Signal: fp=AGTAT pool=0
        True Signal: fp=ATGTC pool=9
        True Signal: fp=TGACT pool=9
        True Signal: fp=CTGTC pool=11
  20    True Signal: fp=GTCTC pool=4
        True Signal: fp=CTGTG pool=3
        True Signal: fp=CTAAA pool=14
        True Signal: fp=ACATC pool=13
        True Signal: fp=GTAAA pool=13
  25    True Signal: fp=ATAAG pool=13
        True Signal: fp=AGCTA pool=4
        True Signal: fp=GTCTT pool=13
        True Signal: fp=AGCTG pool=3
        True Signal: fp=AGGTC pool=1
  30    True Signal: fp=CGCTG pool=12
        True Signal: fp=GGCTC pool=14
        True Signal: fp=AGGTG pool=8
        True Signal: fp=GGGTA pool=10
        True Signal: fp=GGGTA pool=15
  35    True Signal: fp=GGCTG pool=2
        True Signal: fp=GGGTC pool=10
        True Signal: fp=CGAAA pool=3
        True Signal: fp=ATTCA pool=13
        True Signal: fp=ATTCA pool=6
  40    True Signal: fp=TTCAA pool=9
        True Signal: fp=TTCAA pool=12
        True Signal: fp=AACGA pool=11
        True Signal: fp=ACGAA pool=13
        True Signal: fp=ATTCC pool=2
  45    True Signal: fp=CCGAA pool=12
        True Signal: fp=CCGAA pool=14
        True Signal: fp=CATTC pool=13
        True Signal: fp=CCATT pool=11
```

```
     True Signal: fp=GGGTG pool=6
     True Signal: fp=AGAAG pool=0
     True Signal: fp=CCCAG pool=3
     True Signal: fp=CCCAG pool=5
  5  True Signal: fp=CACGC pool=10
     True Signal: fp=CTTCC pool=14
     True Signal: fp=CTTCC pool=6
     True Signal: fp=TTATT pool=0
     True Signal: fp=GATTC pool=12
 10  True Signal: fp=GATTC pool=14
     True Signal: fp=CAGGA pool=15
     True Signal: fp=GCATT pool=15
     True Signal: fp=AGCTT pool=4
     True Signal: fp=ATTCG pool=9
 15  True Signal: fp=ATTCG pool=5
     True Signal: fp=CGAAG pool=14
     True Signal: fp=CACGG pool=9
     True Signal: fp=AAGGG pool=13
     True Signal: fp=GAGGC pool=11
 20  True Signal: fp=GGCTT pool=11
     True Signal: fp=AAACT pool=4
     True Signal: fp=TCAAA pool=4
     True Signal: fp=TCAAC pool=5
     True Signal: fp=CAACT pool=4
 25  True Signal: fp=AGAAT pool=10
     True Signal: fp=AATTT pool=8
     True Signal: fp=TACCC pool=5
     True Signal: fp=ACGAT pool=1
     True Signal: fp=CGAAT pool=12
 30  True Signal: fp=TAAGG pool=1
     True Signal: fp=AAGGT pool=9
     True Signal: fp=AAGGT pool=12
     True Signal: fp=GCTGA pool=12
     True Signal: fp=TGCAG pool=5
 35  True Signal: fp=TAGCG pool=5
     True Signal: fp=GCGAT pool=14
     True Signal: fp=GCTGC pool=10
     True Signal: fp=GCTGG pool=1
     True Signal: fp=GGTCG pool=0
 40  True Signal: fp=TCAAT pool=4
     True Signal: fp=TAAGT pool=2
     True Signal: fp=CCTGT pool=5
     True Signal: fp=TCTCG pool=12
     True Signal: fp=TGTGA pool=9
 45  True Signal: fp=GCTGT pool=2
     True Signal: fp=GGTCT pool=13
     True Signal: fp=CAATA pool=7
     True Signal: fp=GAATA pool=0
```

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```
True Signal: fp=GAATA pool=15
True Signal: fp=ATTTA pool=1
True Signal: fp=ATTTA pool=12
False positive Signal: fp=AAACT pool=2
False positive Signal: fp=CCAGG pool=0
False positive Signal: fp=TAGTA pool=4
False positive Signal: fp=TCCCT pool=13
False positive Signal: fp=CTGTG pool=7
False positive Signal: fp=GCGTA pool=13
False positive Signal: fp=TCTAG pool=0
False positive Signal: fp=ACCTA pool=0
False positive Signal: fp=CACTT pool=10
False positive Signal: fp=GGAAG pool=12
False positive Signal: fp=CCGAC pool=3
False positive Signal: fp=TAGGG pool=12
False positive Signal: fp=TAGCG pool=4
False positive Signal: fp=TCTCC pool=15
False positive Signal: fp=CAGAA pool=9
False positive Signal: fp=TGCGC pool=9
False positive Signal: fp=CGAAT pool=2
False positive Signal: fp=CCGAG pool=9
False positive Signal: fp=CATGC pool=4
False positive Signal: fp=GTATC pool=1
False positive Signal: fp=TCGCT pool=2
False positive Signal: fp=AGGTA pool=14
False positive Signal: fp=AACCC pool=13
False positive Signal: fp=TACCC pool=6
False positive Signal: fp=GTTAA pool=8
False positive Signal: fp=TGGAG pool=12
False positive Signal: fp=ATTCC pool=9
False positive Signal: fp=TCACA pool=15
False positive Signal: fp=CTGCT pool=3
False positive Signal: fp=TGCCG pool=2
False positive Signal: fp=ACTCG pool=4
False positive Signal: fp=CGCAC pool=14
False positive Signal: fp=CTTCG pool=15
False positive Signal: fp=CCTGG pool=0
False positive Signal: fp=AGAAG pool=2
False positive Signal: fp=CTTAA pool=3
False positive Signal: fp=ACGGT pool=9
False positive Signal: fp=CTTGG pool=3
False positive Signal: fp=AGATC pool=12
False positive Signal: fp=GACCG pool=5
False positive Signal: fp=CCGTT pool=8
False positive Signal: fp=CACTC pool=12
False positive Signal: fp=ATTGG pool=5
False positive Signal: fp=AACAC pool=14
False positive Signal: fp=GTACC pool=14
```

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```
        False positive Signal: fp=CCCGT pool=4
        False positive Signal: fp=AGTGG pool=6
        False positive Signal: fp=AGGTC pool=9
        False positive Signal: fp=GAACC pool=1
    5   False positive Signal: fp=GATTC pool=12
        False positive Signal: fp=AAGCT pool=1
        False positive Signal: fp=GCACC pool=7
        False positive Signal: fp=GCCCT pool=5
        False positive Signal: fp=GCTGC pool=0
   10   False positive Signal: fp=GACAA pool=7
        False positive Signal: fp=TCGCT pool=0
        False positive Signal: fp=CGTAA pool=2
        False positive Signal: fp=CGAGT pool=3
        False positive Signal: fp=AATGC pool=7
   15   False positive Signal: fp=AAACT pool=5
        False positive Signal: fp=CGATG pool=7
        False positive Signal: fp=ATCCA pool=14
        False positive Signal: fp=GGTCG pool=1
        False positive Signal: fp=ACCGC pool=2
   20   False positive Signal: fp=TATCA pool=0
        False positive Signal: fp=AATCC pool=4
        False positive Signal: fp=GAGGA pool=14
        False positive Signal: fp=TATAC pool=5
        False positive Signal: fp=TCGCG pool=2
   25   False positive Signal: fp=GAGGG pool=5
        False positive Signal: fp=ATTGA pool=5
        False positive Signal: fp=TCAGA pool=15
        False positive Signal: fp=CGGCC pool=1
        False positive Signal: fp=TCGCT pool=7
   30   False positive Signal: fp=TCTCA pool=10
        False positive Signal: fp=TCTGT pool=11
        False positive Signal: fp=GTGGT pool=4
        False positive Signal: fp=CTTCC pool=5
        False positive Signal: fp=GACAA pool=14
   35   False positive Signal: fp=CTGCC pool=5
        False positive Signal: fp=CAACT pool=6
        False positive Signal: fp=CGAAG pool=13
        False positive Signal: fp=TCGCA pool=15
        False positive Signal: fp=CTTGT pool=13
   40   False positive Signal: fp=GGTCC pool=13
        False positive Signal: fp=ATGTT pool=14
        False positive Signal: fp=CGGCG pool=3
        False positive Signal: fp=CGAGC pool=2
        False positive Signal: fp=AAGCA pool=14
   45   False positive Signal: fp=CAAGG pool=9
        False positive Signal: fp=TGGCT pool=15
        False positive Signal: fp=AGGAT pool=8
        False positive Signal: fp=ACGGG pool=9
```

```
       False positive Signal: fp=AGATG pool=15
       False positive Signal: fp=CCCAA pool=0
       False positive Signal: fp=ACTTC pool=1
       False positive Signal: fp=TCCTT pool=15
   5   False positive Signal: fp=CCAGG pool=6
       False positive Signal: fp=TGCGT pool=4
       False positive Signal: fp=CTACT pool=4
       False positive Signal: fp=AATTG pool=3
       False positive Signal: fp=GGAGC pool=6
  10   False positive Signal: fp=AACAG pool=9
       False positive Signal: fp=GGATT pool=12
       False positive Signal: fp=ATGAA pool=8
       False positive Signal: fp=AGGTT pool=11
       False positive Signal: fp=GCCTT pool=2
  15   False positive Signal: fp=TGCCG pool=12
       False positive Signal: fp=ACTCC pool=13
       False positive Signal: fp=ACCAG pool=13
       False positive Signal: fp=CTCTG pool=4
       False positive Signal: fp=CAGTT pool=15
  20   False positive Signal: fp=CTAAG pool=10
       False positive Signal: fp=ATCGG pool=0
       False positive Signal: fp=CCGTC pool=5
       False positive Signal: fp=TGCTC pool=4
       False positive Signal: fp=ATCTG pool=4
  25   False positive Signal: fp=GGCGT pool=6
       False positive Signal: fp=TACCA pool=9
       False positive Signal: fp=GTGGG pool=6
       False positive Signal: fp=ACGTA pool=12
       False positive Signal: fp=ACGTG pool=9
  30   False positive Signal: fp=CTGTA pool=11
       False positive Signal: fp=GCAGA pool=12
       False positive Signal: fp=GCCGC pool=9
       False positive Signal: fp=ATCAG pool=14
       False positive Signal: fp=AAAAG pool=0
  35   False positive Signal: fp=GTGGG pool=10
       False positive Signal: fp=AACCA pool=5
       False positive Signal: fp=GGACG pool=7
       False positive Signal: fp=GCCGG pool=6
       False positive Signal: fp=GCGAC pool=11
  40   False positive Signal: fp=GCCAC pool=3
       False positive Signal: fp=AGGCC pool=4
       False positive Signal: fp=ACGCA pool=15
       False positive Signal: fp=ACTGA pool=15
       False positive Signal: fp=AATTC pool=10
  45   False positive Signal: fp=GCAAC pool=0
       False positive Signal: fp=GTTTA pool=7
       False positive Signal: fp=AGCAA pool=2
       False positive Signal: fp=GCAAC pool=7
```

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```
      False positive Signal: fp=CGAAA pool=14
      False positive Signal: fp=GTGCA pool=4
      False positive Signal: fp=GCTGT pool=5
      False positive Signal: fp=AATGA pool=15
5     False positive Signal: fp=GATGA pool=4
      False positive Signal: fp=GTAAG pool=2
      False positive Signal: fp=GTCGG pool=1
      False positive Signal: fp=TATAC pool=1
      False positive Signal: fp=AAAGT pool=2
10    False positive Signal: fp=AGCGC pool=13
      False positive Signal: fp=GTTCT pool=13
      False positive Signal: fp=GGGCG pool=3
      False positive Signal: fp=AAAAT pool=7
      False positive Signal: fp=GTAGG pool=1
15    False positive Signal: fp=AAGAT pool=14
      False positive Signal: fp=CATGC pool=3
      False positive Signal: fp=CGGTG pool=7
      False positive Signal: fp=AGAGT pool=9
      False positive Signal: fp=GGATT pool=5
20    False positive Signal: fp=ATTAT pool=12
      False positive Signal: fp=TGTGA pool=0
      False positive Signal: fp=CTGAT pool=15
      False positive Signal: fp=TGGTC pool=13
      False positive Signal: fp=GTTTA pool=2
25    False positive Signal: fp=AAATC pool=1
      False positive Signal: fp=TAGTA pool=3
      False positive Signal: fp=AAACA pool=9
      False positive Signal: fp=GTCGT pool=10
      False positive Signal: fp=TCGTC pool=4
30    False positive Signal: fp=AAACT pool=10
      False positive Signal: fp=AGCCT pool=5
      False positive Signal: fp=CAGTC pool=9
      False positive Signal: fp=AGATC pool=1
      False positive Signal: fp=CTCTG pool=3
35    False positive Signal: fp=TGTCC pool=9
      False positive Signal: fp=CTGCT pool=15
      False positive Signal: fp=GGTAG pool=14
      False positive Signal: fp=CTCTT pool=11
      False positive Signal: fp=CCCTT pool=2
40    False positive Signal: fp=GAATA pool=14
      False positive Signal: fp=TAACC pool=0
      False positive Signal: fp=GCTAT pool=8
      False positive Signal: fp=TACTG pool=2
      False positive Signal: fp=ATGTT pool=3
45    False positive Signal: fp=GACGA pool=12
      False positive Signal: fp=ACAAC pool=14
      False positive Signal: fp=TCGAC pool=2
      False positive Signal: fp=ATGGA pool=9
```

A 70 -

```
False positive Signal: fp=CAGTT pool=1
False positive Signal: fp=GGGCT pool=12
False positive Signal: fp=ACCGG pool=1
False positive Signal: fp=TGCGA pool=12
False positive Signal: fp=GGGTG pool=1
False positive Signal: fp=TGTCA pool=1
False positive Signal: fp=GCCCT pool=5
False positive Signal: fp=CGCTG pool=10
False positive Signal: fp=GCATG pool=11
False positive Signal: fp=TGGCT pool=12
False positive Signal: fp=CGGAG pool=13
False positive Signal: fp=CTCCG pool=3
False positive Signal: fp=CGAAA pool=0
False positive Signal: fp=ACTGG pool=2
False positive Signal: fp=ATCTT pool=6
False positive Signal: fp=AACCT pool=1
False positive Signal: fp=GGACG pool=10
False positive Signal: fp=CGATA pool=11
False positive Signal: fp=ATATA pool=7
False positive Signal: fp=TCGGT pool=10
False positive Signal: fp=TACCT pool=9
False positive Signal: fp=TCAAG pool=1
False positive Signal: fp=GTCGT pool=0
False positive Signal: fp=TATCA pool=1
False positive Signal: fp=GCTAC pool=10
False positive Signal: fp=GTCTT pool=11
False positive Signal: fp=GTATC pool=5
False positive Signal: fp=TCGCC pool=1
False positive Signal: fp=GTTTA pool=14
False positive Signal: fp=GCATT pool=6
False positive Signal: fp=TATAG pool=5
False positive Signal: fp=TCACC pool=5
False positive Signal: fp=TCGCA pool=11
False positive Signal: fp=AACCC pool=15
False positive Signal: fp=TATGC pool=6
False positive Signal: fp=TGGAT pool=0
False positive Signal: fp=TATCC pool=4
False positive Signal: fp=TCAGG pool=8
False positive Signal: fp=CACAA pool=4
False positive Signal: fp=TGCCC pool=11
False positive Signal: fp=GTTCT pool=5
False positive Signal: fp=TACAT pool=8
False positive Signal: fp=TGTTT pool=9
False positive Signal: fp=ACATT pool=7
False positive Signal: fp=AAGCT pool=1
False positive Signal: fp=CGGAC pool=2
False positive Signal: fp=AGAAT pool=13
False positive Signal: fp=AGGCG pool=6
```

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A 71 -

```
       False positive Signal: fp=GCTGT pool=1
       False positive Signal: fp=GGGGT pool=1
       False positive Signal: fp=TGGTG pool=2
       False positive Signal: fp=TCGAT pool=9
  5    False positive Signal: fp=GATCA pool=13
       False positive Signal: fp=CCGGT pool=10
       False positive Signal: fp=ATTGT pool=8
       False positive Signal: fp=ATCAC pool=5
       False positive Signal: fp=GGAAG pool=15
  10   False positive Signal: fp=GACTA pool=0
       False positive Signal: fp=TCTAT pool=0
       False positive Signal: fp=AAGCT pool=15
       False positive Signal: fp=ATTTA pool=5
       False positive Signal: fp=GTTAA pool=7
  15   False positive Signal: fp=ATAAT pool=12
       False positive Signal: fp=AAGTC pool=9
       False positive Signal: fp=GCCTA pool=9
       False positive Signal: fp=AGCCA pool=4
       False positive Signal: fp=AACGC pool=3
  20   False positive Signal: fp=GGTAA pool=15
       False positive Signal: fp=TACTA pool=11
       False positive Signal: fp=GAGCC pool=6
       False positive Signal: fp=AGAAT pool=6
       False positive Signal: fp=AATTG pool=12
  25   False positive Signal: fp=TGCCC pool=11
       False positive Signal: fp=AGTAA pool=12
       False positive Signal: fp=GTAGC pool=4
       False positive Signal: fp=TCGAG pool=4
       False positive Signal: fp=TGCAG pool=0
  30   False positive Signal: fp=GAGTA pool=1
       False positive Signal: fp=GTACC pool=11
       False positive Signal: fp=TCCTG pool=5
       False positive Signal: fp=CCTGA pool=10
       False positive Signal: fp=GTATG pool=1
  35   False positive Signal: fp=ACAGA pool=7
       False positive Signal: fp=GCGTC pool=15
       False positive Signal: fp=ATCGA pool=4
       False positive Signal: fp=ATCCT pool=5
       False positive Signal: fp=TCGTG pool=0
  40   False positive Signal: fp=TCTCT pool=15
       False positive Signal: fp=AGCAA pool=8
       False positive Signal: fp=GCGCT pool=10
       False positive Signal: fp=ACTTC pool=5
       False positive Signal: fp=TCCAG pool=3
  45   False positive Signal: fp=ACGCG pool=7
       False positive Signal: fp=GAGCA pool=5
       False positive Signal: fp=TCAAC pool=4
       False positive Signal: fp=CCTTG pool=1
```

$\mathring{A}$ 72 -

```
False positive Signal: fp=GAGAT pool=11
False positive Signal: fp=CTGAA pool=0
False positive Signal: fp=CTGGC pool=0
False positive Signal: fp=ACCTG pool=6
False positive Signal: fp=GATAC pool=13
False positive Signal: fp=TAGTG pool=7
False positive Signal: fp=TCGAC pool=13
False positive Signal: fp=ATTGA pool=15
False positive Signal: fp=TGTCG pool=2
False positive Signal: fp=CGTGC pool=6
False positive Signal: fp=CAGTG pool=10
False positive Signal: fp=GAGTC pool=11
False positive Signal: fp=AAGTT pool=11
False positive Signal: fp=AGAGA pool=2
False positive Signal: fp=ATATA pool=8
10mers:37056
11mers:6330
12mers:1360
13mers:536
14mers:412
15mers:395
16mers:390
17mers:382
18mers:379
19mers:376
20mers:372
21mers:372
22mers:377
23mers:371
24mers:369
25mers:367
26mers:363
27mers:365
28mers:371
29mers:366
30mers:359
31mers:360
32mers:356
33mers:358
34mers:359
35mers:359
36mers:352
37mers:346
38mers:343
39mers:340
40mers:342
41mers:344
42mers:343
```

A 73 -

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91mers:282
92mers:277
93mers:270
94mers:270
5   95mers:269
96mers:268
97mers:270
98mers:269
99mers:267
10   100mers:265
101mers:266
102mers:265
103mers:265
104mers:261
15   105mers:258
106mers:258
107mers:260
108mers:254
109mers:250
20   110mers:250
111mers:248
112mers:246
113mers:244
114mers:245
25   115mers:247
116mers:248
117mers:245
118mers:245
119mers:241
30   120mers:239
121mers:235
122mers:234
123mers:236
124mers:235
35   125mers:235
126mers:232
127mers:230
128mers:232
129mers:232
40   130mers:226
131mers:224
132mers:220
133mers:221
134mers:219
45   135mers:219
136mers:220
137mers:217
138mers:213

A 75 -

```
139mers:213
140mers:213
141mers:211
142mers:211
143mers:208
144mers:211
145mers:210
146mers:207
147mers:205
148mers:209
149mers:208
150mers:203
151mers:198
152mers:196
153mers:196
154mers:194
155mers:197
156mers:194
157mers:190
158mers:188
159mers:187
160mers:186
161mers:188
162mers:187
163mers:184
164mers:184
165mers:186
166mers:184
167mers:183
168mers:182
169mers:178
170mers:174
171mers:174
172mers:174
173mers:169
174mers:168
175mers:170
176mers:170
177mers:166
178mers:166
179mers:164
180mers:165
181mers:167
182mers:161
183mers:159
184mers:159
185mers:159
186mers:155
```

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A 76 -

```
187mers:156
188mers:154
189mers:151
190mers:150
191mers:154
192mers:152
193mers:150
194mers:150
195mers:144
196mers:143
197mers:144
198mers:140
199mers:141
200mers:142
201mers:137
202mers:136
203mers:136
204mers:135
205mers:134
206mers:132
207mers:129
208mers:128
209mers:124
210mers:123
211mers:123
212mers:122
213mers:122
214mers:123
215mers:121
216mers:119
217mers:121
218mers:121
219mers:121
220mers:120
221mers:115
222mers:111
223mers:112
224mers:112
225mers:109
226mers:111
227mers:107
228mers:104
229mers:104
230mers:103
231mers:101
232mers:102
233mers:99
234mers:96
```

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- 77 -

```
235mers:94
236mers:91
237mers:92
238mers:92
239mers:90
240mers:85
241mers:84
242mers:82
243mers:80
244mers:79
245mers:80
246mers:78
247mers:77
248mers:75
249mers:74
250mers:75
251mers:74
252mers:72
253mers:71
254mers:74
255mers:72
256mers:68
257mers:65
258mers:66
259mers:63
260mers:62
261mers:61
262mers:59
263mers:58
264mers:57
265mers:59
266mers:60
267mers:60
268mers:56
269mers:52
270mers:50
271mers:51
272mers:48
273mers:48
274mers:49
275mers:43
276mers:40
277mers:41
278mers:40
279mers:39
280mers:38
281mers:32
282mers:29
```

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- 78 -

```
       283mers:29
       284mers:29
       285mers:27
       286mers:26
   5   287mers:23
       288mers:19
       289mers:17
       290mers:17
       291mers:15
  10   292mers:13
       293mers:12
       294mers:9
       295mers:7
       296mers:6
  15   297mers:5
       298mers:4
       299mers:3
       300mers:1

  20   GTAGGGGTAG ACATCGCGTA AAAGGGGCGT ACCCAGGACC CCCCTTGGCT CAATAAGTAG
       CGCTGGGGTG CTACTACGGG TCTCGACACG CATTCAACTA AAAGCTTCCA TTCGCACGGG
       CTTATTTAAC GAAGGTCGCG ATAAGGTGCC GAATAGGCTG CAGAGCGGCA GCCTGTCCAG
       TGAATGCTGT GAGGCCTCCA GCTGACTCAT GAGAGAAGCC CAGTATTCAA ACTACGATTC
       CACTCGACAA TTTAGGATGT CTTCCCGAAA GCTATCGGGT AGAATATCAG ATTCGTTTAA
  25
       True solution   DotsOn=286

       Solutions: 1
```

```
r300.100.15.out

Using pool D16
Using sequence r300

True Signal: fp=CTCGA pool=7
True Signal: fp=CTACG pool=1
True Signal: fp=CTACG pool=2
True Signal: fp=GTACC pool=0
True Signal: fp=ATCGC pool=1
True Signal: fp=GAATG pool=15
True Signal: fp=ATCGG pool=13
True Signal: fp=GTCGC pool=13
True Signal: fp=ACCCA pool=14
True Signal: fp=CTGGG pool=10
True Signal: fp=CAATT pool=3
True Signal: fp=GACAA pool=1
True Signal: fp=TACTA pool=3
True Signal: fp=ACCCC pool=6
True Signal: fp=AGACA pool=10
True Signal: fp=TTCCA pool=8
True Signal: fp=TTCCA pool=4
True Signal: fp=ACGCA pool=8
True Signal: fp=GACAC pool=2
True Signal: fp=CGACA pool=10
True Signal: fp=CGACA pool=11
True Signal: fp=CTACT pool=10
True Signal: fp=CCCCC pool=9
True Signal: fp=CCCCC pool=14
True Signal: fp=TTCCC pool=12
True Signal: fp=GCCCA pool=1
True Signal: fp=GAGAA pool=8
True Signal: fp=CCAGC pool=5
True Signal: fp=CAGAG pool=3
True Signal: fp=GCAGA pool=1
True Signal: fp=GCAGC pool=12
True Signal: fp=CGCGA pool=3
True Signal: fp=AGCGC pool=0
True Signal: fp=GGACC pool=1
True Signal: fp=CCAGG pool=7
True Signal: fp=TTAGG pool=1
True Signal: fp=GAGAG pool=1
True Signal: fp=TAAAA pool=11
True Signal: fp=AGCGG pool=4
True Signal: fp=ACTAA pool=15
True Signal: fp=CGGGC pool=4
True Signal: fp=ACTAC pool=4
True Signal: fp=ACTAC pool=7
```

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- 80 -

```
        True Signal:  fp=AGGGG  pool=9
        True Signal:  fp=AGGGG  pool=5
        True Signal:  fp=TTTAA  pool=15
        True Signal:  fp=GGGGC  pool=7
   5    True Signal:  fp=CAGAT  pool=11
        True Signal:  fp=CATGA  pool=14
        True Signal:  fp=AATGC  pool=1
        True Signal:  fp=CCCCT  pool=13
        True Signal:  fp=GACAT  pool=4
  10    True Signal:  fp=TCTTC  pool=8
        True Signal:  fp=CCAGT  pool=10
        True Signal:  fp=CCAGT  pool=9
        True Signal:  fp=GCTAC  pool=9
        True Signal:  fp=TTTAG  pool=11
  15    True Signal:  fp=TGAGA  pool=12
        True Signal:  fp=TGCCG  pool=8
        True Signal:  fp=GCGCT  pool=15
        True Signal:  fp=CGCGT  pool=4
        True Signal:  fp=TGAGG  pool=7
  20    True Signal:  fp=TCGGG  pool=1
        True Signal:  fp=CGGGT  pool=8
        True Signal:  fp=CGGGT  pool=12
        True Signal:  fp=GGCGT  pool=12
        True Signal:  fp=TATCA  pool=4
  25    True Signal:  fp=ATATC  pool=2
        True Signal:  fp=CTATC  pool=6
        True Signal:  fp=GGGGT  pool=11
        True Signal:  fp=GGGGT  pool=14
        True Signal:  fp=TATCG  pool=3
  30    True Signal:  fp=GCTAT  pool=3
        True Signal:  fp=GATGT  pool=0
        True Signal:  fp=TGGCT  pool=6
        True Signal:  fp=CTCAA  pool=15
        True Signal:  fp=ATCAG  pool=6
  35    True Signal:  fp=CGATA  pool=8
        True Signal:  fp=CTGAC  pool=5
        True Signal:  fp=GTATT  pool=11
        True Signal:  fp=ATGAG  pool=8
        True Signal:  fp=GCCTC  pool=0
  40    True Signal:  fp=GTGAA  pool=2
        True Signal:  fp=GCGTA  pool=0
        True Signal:  fp=GCGTA  pool=9
        True Signal:  fp=GCCTG  pool=12
        True Signal:  fp=GGATG  pool=1
  45    True Signal:  fp=GTGAG  pool=0
        True Signal:  fp=TTAAC  pool=2
        True Signal:  fp=AAAGC  pool=1
        True Signal:  fp=AAAGC  pool=6
```

A 81 -

```
          True Signal: fp=AAGCC pool=8
          True Signal: fp=CTCAT pool=8
          True Signal: fp=AGATT pool=12
          True Signal: fp=CAGCC pool=10
    5     True Signal: fp=CGCAC pool=4
          True Signal: fp=AAAGG pool=1
          True Signal: fp=GACCC pool=9
          True Signal: fp=CCCTT pool=1
          True Signal: fp=CGATT pool=11
   10     True Signal: fp=GAAGC pool=5
          True Signal: fp=TCATG pool=1
          True Signal: fp=AGGAC pool=15
          True Signal: fp=TGCTA pool=4
          True Signal: fp=GAAGG pool=10
   15     True Signal: fp=AATAA pool=2
          True Signal: fp=TGCTG pool=9
          True Signal: fp=GGCAG pool=1
          True Signal: fp=GAGCG pool=3
          True Signal: fp=CTTGG pool=1
   20     True Signal: fp=ACAAT pool=6
          True Signal: fp=ACTCA pool=7
          True Signal: fp=TCCAC pool=10
          True Signal: fp=AATAG pool=13
          True Signal: fp=GATAA pool=1
   25     True Signal: fp=TACGA pool=6
          True Signal: fp=TATTC pool=2
          True Signal: fp=CCTCC pool=3
          True Signal: fp=TAACG pool=14
          True Signal: fp=AAGCT pool=12
   30     True Signal: fp=AAGCT pool=5
          True Signal: fp=ACTCG pool=15
          True Signal: fp=CAGCT pool=9
          True Signal: fp=TCCAG pool=8
          True Signal: fp=TCCAG pool=2
   35     True Signal: fp=CGCAT pool=11
          True Signal: fp=TCGAC pool=9
          True Signal: fp=TCGAC pool=13
          True Signal: fp=GCTCA pool=5
          True Signal: fp=AGGAT pool=8
   40     True Signal: fp=TAGGA pool=15
          True Signal: fp=AGTGA pool=14
          True Signal: fp=TAGGC pool=13
          True Signal: fp=TACGG pool=7
          True Signal: fp=TAGGG pool=13
   45     True Signal: fp=AATAT pool=13
          True Signal: fp=GGTGC pool=1
          True Signal: fp=GGTGC pool=4
          True Signal: fp=TCCAT pool=9
```

```
      True Signal: fp=TGAAT pool=10
      True Signal: fp=TATTT pool=6
      True Signal: fp=TGTCC pool=10
      True Signal: fp=AACTA pool=11
 5    True Signal: fp=AACTA pool=3
      True Signal: fp=CACTC pool=7
      True Signal: fp=CTCCA pool=6
      True Signal: fp=AAGTA pool=7
      True Signal: fp=CAGTA pool=8
10    True Signal: fp=GACTC pool=14
      True Signal: fp=GTCCA pool=3
      True Signal: fp=CTGCA pool=11
      True Signal: fp=ATAGG pool=12
      True Signal: fp=GTAGA pool=8
15    True Signal: fp=GTAGA pool=9
      True Signal: fp=TGTCT pool=0
      True Signal: fp=CAGTG pool=15
      True Signal: fp=GTAGC pool=14
      True Signal: fp=GTGCC pool=10
20    True Signal: fp=CAAAC pool=11
      True Signal: fp=GTAGG pool=3
      True Signal: fp=AAAAG pool=0
      True Signal: fp=AAAAG pool=2
      True Signal: fp=ACACG pool=5
25    True Signal: fp=GAAAG pool=14
      True Signal: fp=CCCGA pool=15
      True Signal: fp=AGCCC pool=10
      True Signal: fp=AGAGA pool=13
      True Signal: fp=ATGCT pool=6
30    True Signal: fp=AGAGC pool=14
      True Signal: fp=GCTTA pool=9
      True Signal: fp=AGGCC pool=12
      True Signal: fp=CGGCA pool=10
      True Signal: fp=GCCGA pool=7
35    True Signal: fp=CCTTG pool=2
      True Signal: fp=GCTTC pool=5
      True Signal: fp=TTCGC pool=10
      True Signal: fp=GCACG pool=10
      True Signal: fp=TTGGC pool=12
40    True Signal: fp=GTGCT pool=9
      True Signal: fp=ACGGG pool=11
      True Signal: fp=ACGGG pool=3
      True Signal: fp=GCGGC pool=11
      True Signal: fp=TAGAA pool=15
45    True Signal: fp=CCACT pool=13
      True Signal: fp=GGGCG pool=2
      True Signal: fp=TCAGA pool=9
      True Signal: fp=CGTAA pool=6
```

A 83 -

```
        True Signal: fp=TAGAC pool=11
        True Signal: fp=CTTAT pool=13
        True Signal: fp=AGCCT pool=0
        True Signal: fp=CGTAC pool=7
  5     True Signal: fp=CATCG pool=7
        True Signal: fp=TCGCA pool=7
        True Signal: fp=TCCCG pool=11
        True Signal: fp=AGTAG pool=9
        True Signal: fp=AGGCT pool=10
  10    True Signal: fp=GGCCT pool=8
        True Signal: fp=TCGCG pool=5
        True Signal: fp=GGTAG pool=10
        True Signal: fp=GGTAG pool=3
        True Signal: fp=GGGCT pool=8
  15    True Signal: fp=TGGGG pool=1
        True Signal: fp=AGTAT pool=0
        True Signal: fp=ATGTC pool=9
        True Signal: fp=TGACT pool=9
        True Signal: fp=CTGTC pool=11
  20    True Signal: fp=GTCTC pool=4
        True Signal: fp=CTGTG pool=3
        True Signal: fp=CTAAA pool=14
        True Signal: fp=ACATC pool=13
        True Signal: fp=GTAAA pool=13
  25    True Signal: fp=ATAAG pool=13
        True Signal: fp=AGCTA pool=4
        True Signal: fp=GTCTT pool=13
        True Signal: fp=AGCTG pool=3
        True Signal: fp=AGGTC pool=1
  30    True Signal: fp=CGCTG pool=12
        True Signal: fp=GGCTC pool=14
        True Signal: fp=AGGTG pool=8
        True Signal: fp=GGGTA pool=10
        True Signal: fp=GGGTA pool=15
  35    True Signal: fp=GGCTG pool=2
        True Signal: fp=GGGTC pool=10
        True Signal: fp=CGAAA pool=3
        True Signal: fp=ATTCA pool=13
        True Signal: fp=ATTCA pool=6
  40    True Signal: fp=TTCAA pool=9
        True Signal: fp=TTCAA pool=12
        True Signal: fp=AACGA pool=11
        True Signal: fp=ACGAA pool=13
        True Signal: fp=ATTCC pool=2
  45    True Signal: fp=CCGAA pool=12
        True Signal: fp=CCGAA pool=14
        True Signal: fp=CATTC pool=13
        True Signal: fp=CCATT pool=11
```

```
       True Signal: fp=GGGTG pool=6
       True Signal: fp=AGAAG pool=0
       True Signal: fp=CCCAG pool=3
       True Signal: fp=CCCAG pool=5
  5    True Signal: fp=CACGC pool=10
       True Signal: fp=CTTCC pool=14
       True Signal: fp=CTTCC pool=6
       True Signal: fp=TTATT pool=0
       True Signal: fp=GATTC pool=12
 10    True Signal: fp=GATTC pool=14
       True Signal: fp=CAGGA pool=15
       True Signal: fp=GCATT pool=15
       True Signal: fp=AGCTT pool=4
       True Signal: fp=ATTCG pool=9
 15    True Signal: fp=ATTCG pool=5
       True Signal: fp=CGAAG pool=14
       True Signal: fp=CACGG pool=9
       True Signal: fp=AAGGG pool=13
       True Signal: fp=GAGGC pool=11
 20    True Signal: fp=GGCTT pool=11
       True Signal: fp=AAACT pool=4
       True Signal: fp=TCAAA pool=4
       True Signal: fp=TCAAC pool=5
       True Signal: fp=CAACT pool=4
 25    True Signal: fp=AGAAT pool=10
       True Signal: fp=AATTT pool=8
       True Signal: fp=TACCC pool=5
       True Signal: fp=ACGAT pool=1
       True Signal: fp=CGAAT pool=12
 30    True Signal: fp=TAAGG pool=1
       True Signal: fp=AAGGT pool=9
       True Signal: fp=AAGGT pool=12
       True Signal: fp=GCTGA pool=12
       True Signal: fp=TGCAG pool=5
 35    True Signal: fp=TAGCG pool=5
       True Signal: fp=GCGAT pool=14
       True Signal: fp=GCTGC pool=10
       True Signal: fp=GCTGG pool=1
       True Signal: fp=GGTCG pool=0
 40    True Signal: fp=TCAAT pool=4
       True Signal: fp=TAAGT pool=2
       True Signal: fp=CCTGT pool=5
       True Signal: fp=TCTCG pool=12
       True Signal: fp=TGTGA pool=9
 45    True Signal: fp=GCTGT pool=2
       True Signal: fp=GGTCT pool=13
       True Signal: fp=CAATA pool=7
       True Signal: fp=GAATA pool=0
```

```
      True Signal: fp=GAATA pool=15
      True Signal: fp=ATTTA pool=1
      True Signal: fp=ATTTA pool=12
      False positive Signal: fp=CAATT pool=6
  5   False positive Signal: fp=AGAGT pool=4
      False positive Signal: fp=TGCAC pool=15
      False positive Signal: fp=CATCA pool=9
      False positive Signal: fp=ACACG pool=1
      False positive Signal: fp=GTTTG pool=5
 10   False positive Signal: fp=CAGGT pool=12
      False positive Signal: fp=TCACT pool=2
      False positive Signal: fp=GGCAA pool=13
      False positive Signal: fp=GCCTA pool=2
      False positive Signal: fp=AGGAG pool=11
 15   False positive Signal: fp=GGCCG pool=8
      False positive Signal: fp=CTCGA pool=8
      False positive Signal: fp=GGAGG pool=10
      False positive Signal: fp=GACCT pool=7
      False positive Signal: fp=CAGAG pool=14
 20   False positive Signal: fp=ACTTC pool=11
      False positive Signal: fp=AGACT pool=8
      False positive Signal: fp=TGCTT pool=12
      False positive Signal: fp=GGTCG pool=4
      False positive Signal: fp=GATAC pool=8
 25   False positive Signal: fp=AGGCG pool=4
      False positive Signal: fp=TGCGG pool=3
      False positive Signal: fp=GTCTC pool=7
      False positive Signal: fp=ACCCA pool=10
      False positive Signal: fp=ACATA pool=9
 30   False positive Signal: fp=AAGGG pool=5
      False positive Signal: fp=GCGAT pool=9
      False positive Signal: fp=CTATT pool=11
      False positive Signal: fp=TAGGT pool=8
      False positive Signal: fp=GACCG pool=11
 35   False positive Signal: fp=ACATT pool=1
      False positive Signal: fp=GCTAC pool=2
      False positive Signal: fp=ACAAT pool=7
      False positive Signal: fp=AGGAC pool=7
      False positive Signal: fp=GCCTC pool=13
 40   False positive Signal: fp=CTAGT pool=9
      False positive Signal: fp=AGTTA pool=8
      False positive Signal: fp=ATAGA pool=14
      False positive Signal: fp=ATTTC pool=10
      False positive Signal: fp=CGATC pool=0
 45   False positive Signal: fp=GCGTT pool=1
      False positive Signal: fp=CGGAG pool=3
      False positive Signal: fp=GTATG pool=8
      False positive Signal: fp=TCGAA pool=4
```

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```
        False positive Signal: fp=ACATT pool=8
        False positive Signal: fp=AAAAC pool=11
        False positive Signal: fp=TGCGC pool=11
        False positive Signal: fp=GCAAC pool=11
   5    False positive Signal: fp=GGCAG pool=1
        False positive Signal: fp=CGAGA pool=2
        False positive Signal: fp=GTCAA pool=9
        False positive Signal: fp=TCGAT pool=10
        False positive Signal: fp=AGGAT pool=7
  10    False positive Signal: fp=TCAGT pool=14
        False positive Signal: fp=CGACG pool=14
        False positive Signal: fp=GGAAG pool=11
        False positive Signal: fp=GTCTG pool=6
        False positive Signal: fp=TGCTC pool=13
  15    False positive Signal: fp=TGCTC pool=15
        False positive Signal: fp=CTAGC pool=13
        False positive Signal: fp=GCCTT pool=1
        False positive Signal: fp=CATAA pool=4
        False positive Signal: fp=GCCAC pool=9
  20    False positive Signal: fp=CAGCA pool=12
        False positive Signal: fp=ATCGA pool=8
        False positive Signal: fp=CAGCC pool=14
        False positive Signal: fp=CGCGA pool=9
        False positive Signal: fp=CAGCC pool=8
  25    False positive Signal: fp=GGCTT pool=8
        False positive Signal: fp=GGTCG pool=0
        False positive Signal: fp=TATGA pool=14
        False positive Signal: fp=CCCGC pool=10
        False positive Signal: fp=AGCCG pool=0
  30    False positive Signal: fp=CTAGC pool=10
        False positive Signal: fp=AGTCT pool=1
        False positive Signal: fp=GAGCT pool=7
        False positive Signal: fp=ACCAA pool=10
        False positive Signal: fp=GTCTT pool=3
  35    False positive Signal: fp=GGGCG pool=5
        False positive Signal: fp=GAGTT pool=1
        False positive Signal: fp=AATGC pool=13
        False positive Signal: fp=GAGGT pool=7
        False positive Signal: fp=TACTA pool=3
  40    False positive Signal: fp=TACTT pool=7
        False positive Signal: fp=CTCCA pool=5
        False positive Signal: fp=GATAA pool=0
        False positive Signal: fp=TGTAT pool=0
        False positive Signal: fp=GACCG pool=5
  45    False positive Signal: fp=TCTAT pool=11
        False positive Signal: fp=CTCTA pool=15
        False positive Signal: fp=TAACG pool=14
        False positive Signal: fp=TCTGC pool=6
```

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```
     False positive Signal: fp=CCTCA pool=15
     False positive Signal: fp=GAGCT pool=2
     False positive Signal: fp=CGGCT pool=0
     False positive Signal: fp=GCCGA pool=9
 5   False positive Signal: fp=TAAAC pool=7
     False positive Signal: fp=TAGGT pool=8
     False positive Signal: fp=GGGAT pool=12
     False negative : fp= pool=
     False negative : fp=CTCGA pool=7
10   False negative : fp=CTACG pool=1
     False negative : fp=CTACG pool=2
     False negative : fp=GTACC pool=0
     False negative : fp=ATCGC pool=1
     False negative : fp=GAATG pool=15
15   False negative : fp=ATCGG pool=13
     False negative : fp=GTCGC pool=13
     False negative : fp=ACCCA pool=14
     False negative : fp=CTGGG pool=10
     False negative : fp=CAATT pool=3
20   False negative : fp=GACAA pool=1
     False negative : fp=TACTA pool=3
     False negative : fp=ACCCC pool=6
     10mers:23488
     11mers:20478
25   12mers:15215
     13mers:10346
     14mers:7890
     15mers:5945
     16mers:5080
30   17mers:4433
     18mers:4074
     19mers:3825
     20mers:3745
     21mers:3700
35   22mers:3705
     23mers:3680
     24mers:3668
     25mers:3676
     26mers:3670
40   27mers:3688
     28mers:3719
     29mers:3742
     30mers:3734
     31mers:3767
45   32mers:3837
     33mers:3855
     34mers:3867
     35mers:3953
```

```
36mers:3981
37mers:3995
38mers:4024
39mers:4041
40mers:4058
41mers:4039
42mers:4085
43mers:4135
44mers:4217
45mers:4386
46mers:4528
47mers:4608
48mers:4641
49mers:4644
50mers:4662
51mers:4705
52mers:4786
53mers:4845
54mers:4875
55mers:4899
56mers:4935
57mers:4925
58mers:4943
59mers:4993
60mers:5058
61mers:5142
62mers:5174
63mers:5221
64mers:5262
65mers:5295
66mers:5287
67mers:5312
68mers:5383
69mers:5483
70mers:5601
71mers:5707
72mers:5814
73mers:5885
74mers:5954
75mers:6047
76mers:6110
77mers:6127
78mers:6109
79mers:6137
80mers:6176
81mers:6186
82mers:6242
83mers:6311
```

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```
84mers:6361
85mers:6382
86mers:6372
87mers:6417
5    88mers:6464
89mers:6507
90mers:6610
91mers:6646
92mers:6616
10    93mers:6595
94mers:6584
95mers:6631
96mers:6684
97mers:6771
15    98mers:6832
99mers:6829
100mers:6841
101mers:6887
102mers:6853
20    103mers:6867
104mers:6882
105mers:6897
106mers:6957
107mers:7050
25    108mers:7186
109mers:7307
110mers:7360
111mers:7470
112mers:7521
30    113mers:7502
114mers:7556
115mers:7560
116mers:7605
117mers:7619
35    118mers:7587
119mers:7614
120mers:7620
121mers:7630
122mers:7664
40    123mers:7626
124mers:7592
125mers:7575
126mers:7532
127mers:7528
45    128mers:7487
129mers:7419
130mers:7372
131mers:7363
```

```
132mers:7396
133mers:7453
134mers:7442
135mers:7436
5       136mers:7425
137mers:7365
138mers:7383
139mers:7426
140mers:7429
10      141mers:7487
142mers:7491
143mers:7446
144mers:7414
145mers:7405
15      146mers:7429
147mers:7434
148mers:7497
149mers:7558
150mers:7550
20      151mers:5291
152mers:5258
153mers:5165
154mers:5051
155mers:4937
25      156mers:4850
157mers:4858
158mers:4844
159mers:4796
160mers:4755
30      161mers:4666
162mers:4602
163mers:4557
164mers:4509
165mers:4503
35      166mers:4487
167mers:4478
168mers:4466
169mers:4432
170mers:4407
40      171mers:4389
172mers:4342
173mers:4332
174mers:4266
175mers:4166
45      176mers:4115
177mers:4031
178mers:3959
179mers:3857
```

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```
          180mers:3758
          181mers:3718
          182mers:3685
          183mers:3632
   5      184mers:3575
          185mers:3498
          186mers:3454
          187mers:3434
          188mers:3427
   10     189mers:3424
          190mers:3396
          191mers:3361
          192mers:3340
          193mers:3271
   15     194mers:3218
          195mers:3200
          196mers:3130
          197mers:3091
          198mers:3067
   20     199mers:3020
          200mers:3013
          201mers:3011
          202mers:3032
          203mers:3015
   25     204mers:2876
          205mers:2800
          206mers:2757
          207mers:2733
          208mers:2740
   30     209mers:2680
          210mers:2610
          211mers:2558
          212mers:2511
          213mers:2513
   35     214mers:2473
          215mers:2397
          216mers:2317
          217mers:2208
          218mers:2143
   40     219mers:2141
          220mers:2118
          221mers:2114
          222mers:2144
          223mers:2121
   45     224mers:2104
          225mers:2077
          226mers:2077
          227mers:2029
```

```
                228mers:1924
                229mers:1870
                230mers:1823
                231mers:1781
        5       232mers:1772
                233mers:1731
                234mers:1625
                235mers:1561
                236mers:1515
        10      237mers:1493
                238mers:1442
                239mers:1379
                240mers:1323
                241mers:1246
        15      242mers:1195
                243mers:1197
                244mers:1160
                245mers:1137
                246mers:1127
        20      247mers:1099
                248mers:1095
                249mers:1076
                250mers:1046
                251mers:991
        25      252mers:944
                253mers:916
                254mers:901
                255mers:881
                256mers:877
        30      257mers:862
                258mers:818
                259mers:789
                260mers:771
                261mers:754
        35      262mers:728
                263mers:698
                264mers:663
                265mers:610
                266mers:566
        40      267mers:555
                268mers:521
                269mers:474
                270mers:418
                271mers:367
        45      272mers:343
                273mers:326
                274mers:316
                275mers:294
```

276mers:263
277mers:236
278mers:219
279mers:214
5   280mers:218
281mers:220
282mers:218
283mers:209
284mers:199
10   285mers:194
286mers:196
287mers:187
288mers:174
289mers:161
15   290mers:139
291mers:123
292mers:114
293mers:101
294mers:79
20   295mers:58
296mers:47
297mers:37
298mers:27
299mers:18
25   300mers:11

GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
30   CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTT
    DotsOn=286

GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
35   GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTTG
    DotsOn=286

40
GGGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGC
TGGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTA
ACGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAG
GCCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGAT
45   GTCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTT
    DotsOn=285

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```
     GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
     GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
     CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
     CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
5    TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTG
     DotsOn=286


     GGGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGC
     TGGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTA
10   ACGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAG
     GCCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGAT
     GTCTTCCCGAAAGCTATCGGGTAGAATATCAGATTGTAGT
     DotsOn=285


15   GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
     GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
     GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
     CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
     CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTAA
20   True solution    DotsOn=286


     GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
     GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
     GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
25   CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
     CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCCCATGT
     DotsOn=284


     GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
30   GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
     CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
     CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
     TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCCCATG
     DotsOn=285
35

     GGGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGC
     TGGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTA
     ACGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAG
     GCCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGAT
40   GTCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCCCAT
     DotsOn=285


     GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
     GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
45   CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
     CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
     TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTA
     DotsOn=286
```

```
GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTGA
   DotsOn=285

Solutions: 11
```

5

r300.0.0.DN16.out

Using pool DN16
Using sequence r300

True Signal: fp=CTCGA pool=7
True Signal: fp=CTACG pool=1
True Signal: fp=CTACG pool=2
True Signal: fp=GTACC pool=0
True Signal: fp=ATCGC pool=1
True Signal: fp=GAATG pool=15
True Signal: fp=ATCGG pool=13
True Signal: fp=GTCGC pool=13
True Signal: fp=ACCCA pool=14
True Signal: fp=CTGGG pool=10
True Signal: fp=CAATT pool=3
True Signal: fp=GACAA pool=1
True Signal: fp=TACTA pool=3
True Signal: fp=ACCCC pool=6
True Signal: fp=AGACA pool=10
True Signal: fp=TTCCA pool=8
True Signal: fp=TTCCA pool=4
True Signal: fp=ACGCA pool=8
True Signal: fp=GACAC pool=2
True Signal: fp=CGACA pool=10
True Signal: fp=CGACA pool=11
True Signal: fp=CTACT pool=10
True Signal: fp=CCCCC pool=2
True Signal: fp=CCCCC pool=14
True Signal: fp=TTCCC pool=12
True Signal: fp=GCCCA pool=1
True Signal: fp=GAGAA pool=8
True Signal: fp=CCAGC pool=5
True Signal: fp=CAGAG pool=3
True Signal: fp=GCAGA pool=1
True Signal: fp=GCAGC pool=12
True Signal: fp=CGCGA pool=3
True Signal: fp=AGCGC pool=0
True Signal: fp=GGACC pool=1
True Signal: fp=CCAGG pool=7
True Signal: fp=TTAGG pool=1
True Signal: fp=GAGAG pool=6
True Signal: fp=TAAAA pool=11
True Signal: fp=AGCGG pool=4
True Signal: fp=ACTAA pool=15
True Signal: fp=CGGGC pool=4
True Signal: fp=ACTAC pool=4
True Signal: fp=ACTAC pool=7

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```
           True Signal:  fp=AGGGG  pool=9
           True Signal:  fp=AGGGG  pool=5
           True Signal:  fp=TTTAA  pool=15
           True Signal:  fp=GGGGC  pool=7
     5     True Signal:  fp=CAGAT  pool=11
           True Signal:  fp=CATGA  pool=14
           True Signal:  fp=AATGC  pool=1
           True Signal:  fp=CCCCT  pool=13
           True Signal:  fp=GACAT  pool=4
    10     True Signal:  fp=TCTTC  pool=8
           True Signal:  fp=CCAGT  pool=10
           True Signal:  fp=CCAGT  pool=9
           True Signal:  fp=GCTAC  pool=9
           True Signal:  fp=TTTAG  pool=11
    15     True Signal:  fp=TGAGA  pool=12
           True Signal:  fp=TGCCG  pool=8
           True Signal:  fp=GCGCT  pool=15
           True Signal:  fp=CGCGT  pool=4
           True Signal:  fp=TGAGG  pool=5
    20     True Signal:  fp=TCGGG  pool=1
           True Signal:  fp=CGGGT  pool=8
           True Signal:  fp=CGGGT  pool=12
           True Signal:  fp=GGCGT  pool=12
           True Signal:  fp=TATCA  pool=4
    25     True Signal:  fp=ATATC  pool=9
           True Signal:  fp=CTATC  pool=6
           True Signal:  fp=GGGGT  pool=11
           True Signal:  fp=GGGGT  pool=14
           True Signal:  fp=TATCG  pool=3
    30     True Signal:  fp=GCTAT  pool=3
           True Signal:  fp=GATGT  pool=0
           True Signal:  fp=TGGCT  pool=6
           True Signal:  fp=CTCAA  pool=15
           True Signal:  fp=ATCAG  pool=6
    35     True Signal:  fp=CGATA  pool=2
           True Signal:  fp=CTGAC  pool=5
           True Signal:  fp=GTATT  pool=11
           True Signal:  fp=ATGAG  pool=8
           True Signal:  fp=GCCTC  pool=11
    40     True Signal:  fp=GTGAA  pool=2
           True Signal:  fp=GCGTA  pool=0
           True Signal:  fp=GCGTA  pool=9
           True Signal:  fp=GCCTG  pool=12
           True Signal:  fp=GGATG  pool=1
    45     True Signal:  fp=GTGAG  pool=0
           True Signal:  fp=TTAAC  pool=6
           True Signal:  fp=AAAGC  pool=1
           True Signal:  fp=AAAGC  pool=6
```

```
         True Signal:   fp=AAGCC  pool=8
         True Signal:   fp=CTCAT  pool=8
         True Signal:   fp=AGATT  pool=12
         True Signal:   fp=CAGCC  pool=10
    5    True Signal:   fp=CGCAC  pool=3
         True Signal:   fp=AAAGG  pool=1
         True Signal:   fp=GACCC  pool=9
         True Signal:   fp=CCCTT  pool=1
         True Signal:   fp=CGATT  pool=11
   10    True Signal:   fp=GAAGC  pool=5
         True Signal:   fp=TCATG  pool=1
         True Signal:   fp=AGGAC  pool=6
         True Signal:   fp=TGCTA  pool=4
         True Signal:   fp=GAAGG  pool=10
   15    True Signal:   fp=AATAA  pool=2
         True Signal:   fp=TGCTG  pool=9
         True Signal:   fp=GGCAG  pool=1
         True Signal:   fp=GAGCG  pool=3
         True Signal:   fp=CTTGG  pool=1
   20    True Signal:   fp=ACAAT  pool=6
         True Signal:   fp=ACTCA  pool=7
         True Signal:   fp=TCCAC  pool=10
         True Signal:   fp=AATAG  pool=13
         True Signal:   fp=GATAA  pool=1
   25    True Signal:   fp=TACGA  pool=6
         True Signal:   fp=TATTC  pool=2
         True Signal:   fp=CCTCC  pool=3
         True Signal:   fp=TAACG  pool=14
         True Signal:   fp=AAGCT  pool=12
   30    True Signal:   fp=AAGCT  pool=5
         True Signal:   fp=ACTCG  pool=15
         True Signal:   fp=CAGCT  pool=9
         True Signal:   fp=TCCAG  pool=8
         True Signal:   fp=CGCAT  pool=11
   35    True Signal:   fp=TCGAC  pool=9
         True Signal:   fp=TCGAC  pool=5
         True Signal:   fp=GCTCA  pool=5
         True Signal:   fp=AGGAT  pool=8
         True Signal:   fp=TAGGA  pool=15
   40    True Signal:   fp=AGTGA  pool=14
         True Signal:   fp=TAGGC  pool=13
         True Signal:   fp=TACGG  pool=7
         True Signal:   fp=TAGGG  pool=13
         True Signal:   fp=AATAT  pool=13
   45    True Signal:   fp=GGTGC  pool=1
         True Signal:   fp=GGTGC  pool=5
         True Signal:   fp=TCCAT  pool=9
         True Signal:   fp=TGAAT  pool=10
```

```
     True Signal: fp=TATTT  pool=6
     True Signal: fp=TGTCC  pool=10
     True Signal: fp=AACTA  pool=1
     True Signal: fp=AACTA  pool=3
5    True Signal: fp=CACTC  pool=7
     True Signal: fp=CTCCA  pool=6
     True Signal: fp=AAGTA  pool=7
     True Signal: fp=CAGTA  pool=8
     True Signal: fp=GACTC  pool=14
10   True Signal: fp=GTCCA  pool=3
     True Signal: fp=CTGCA  pool=11
     True Signal: fp=ATAGG  pool=14
     True Signal: fp=GTAGA  pool=8
     True Signal: fp=GTAGA  pool=9
15   True Signal: fp=TGTCT  pool=0
     True Signal: fp=CAGTG  pool=15
     True Signal: fp=GTAGC  pool=14
     True Signal: fp=GTGCC  pool=10
     True Signal: fp=CAAAC  pool=11
20   True Signal: fp=GTAGG  pool=3
     True Signal: fp=AAAAG  pool=0
     True Signal: fp=AAAAG  pool=2
     True Signal: fp=ACACG  pool=5
     True Signal: fp=GAAAG  pool=14
25   True Signal: fp=CCCGA  pool=15
     True Signal: fp=AGCCC  pool=10
     True Signal: fp=AGAGA  pool=13
     True Signal: fp=ATGCT  pool=6
     True Signal: fp=AGAGC  pool=14
30   True Signal: fp=GCTTA  pool=9
     True Signal: fp=AGGCC  pool=12
     True Signal: fp=CGGCA  pool=10
     True Signal: fp=GCCGA  pool=7
     True Signal: fp=CCTTG  pool=2
35   True Signal: fp=GCTTC  pool=5
     True Signal: fp=TTCGC  pool=10
     True Signal: fp=GCACG  pool=10
     True Signal: fp=TTGGC  pool=12
     True Signal: fp=GTGCT  pool=9
40   True Signal: fp=ACGGG  pool=0
     True Signal: fp=ACGGG  pool=3
     True Signal: fp=GCGGC  pool=11
     True Signal: fp=TAGAA  pool=2
     True Signal: fp=CCACT  pool=13
45   True Signal: fp=GGGCG  pool=2
     True Signal: fp=TCAGA  pool=9
     True Signal: fp=CGTAA  pool=12
     True Signal: fp=TAGAC  pool=11
```

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```
       True Signal: fp=CTTAT pool=13
       True Signal: fp=AGCCT pool=0
       True Signal: fp=CGTAC pool=7
       True Signal: fp=CATCG pool=7
   5   True Signal: fp=TCGCA pool=7
       True Signal: fp=TCCCG pool=1
       True Signal: fp=AGTAG pool=9
       True Signal: fp=AGGCT pool=10
       True Signal: fp=GGCCT pool=8
  10   True Signal: fp=TCGCG pool=5
       True Signal: fp=GGTAG pool=10
       True Signal: fp=GGTAG pool=3
       True Signal: fp=GGGCT pool=8
       True Signal: fp=TGGGG pool=1
  15   True Signal: fp=AGTAT pool=0
       True Signal: fp=ATGTC pool=9
       True Signal: fp=TGACT pool=9
       True Signal: fp=CTGTC pool=11
       True Signal: fp=GTCTC pool=4
  20   True Signal: fp=CTGTG pool=3
       True Signal: fp=CTAAA pool=14
       True Signal: fp=ACATC pool=13
       True Signal: fp=GTAAA pool=13
       True Signal: fp=ATAAG pool=13
  25   True Signal: fp=AGCTA pool=4
       True Signal: fp=GTCTT pool=13
       True Signal: fp=AGCTG pool=4
       True Signal: fp=AGGTC pool=1
       True Signal: fp=CGCTG pool=12
  30   True Signal: fp=GGCTC pool=14
       True Signal: fp=AGGTG pool=8
       True Signal: fp=GGGTA pool=10
       True Signal: fp=GGGTA pool=15
       True Signal: fp=GGCTG pool=2
  35   True Signal: fp=GGGTC pool=10
       True Signal: fp=CGAAA pool=3
       True Signal: fp=ATTCA pool=13
       True Signal: fp=ATTCA pool=6
       True Signal: fp=TTCAA pool=9
  40   True Signal: fp=TTCAA pool=12
       True Signal: fp=AACGA pool=11
       True Signal: fp=ACGAA pool=13
       True Signal: fp=ATTCC pool=2
       True Signal: fp=CCGAA pool=12
  45   True Signal: fp=CCGAA pool=14
       True Signal: fp=CATTC pool=13
       True Signal: fp=CCATT pool=11
       True Signal: fp=GGGTG pool=6
```

```
        True Signal: fp=AGAAG pool=0
        True Signal: fp=CCCAG pool=3
        True Signal: fp=CCCAG pool=5
        True Signal: fp=CACGC pool=10
   5    True Signal: fp=CTTCC pool=14
        True Signal: fp=CTTCC pool=6
        True Signal: fp=TTATT pool=0
        True Signal: fp=GATTC pool=12
        True Signal: fp=GATTC pool=14
  10    True Signal: fp=CAGGA pool=6
        True Signal: fp=GCATT pool=15
        True Signal: fp=AGCTT pool=4
        True Signal: fp=ATTCG pool=9
        True Signal: fp=ATTCG pool=5
  15    True Signal: fp=CGAAG pool=14
        True Signal: fp=CACGG pool=9
        True Signal: fp=AAGGG pool=13
        True Signal: fp=GAGGC pool=11
        True Signal: fp=GGCTT pool=11
  20    True Signal: fp=AAACT pool=4
        True Signal: fp=TCAAA pool=4
        True Signal: fp=TCAAC pool=5
        True Signal: fp=CAACT pool=4
        True Signal: fp=AGAAT pool=10
  25    True Signal: fp=AATTT pool=8
        True Signal: fp=TACCC pool=5
        True Signal: fp=ACGAT pool=1
        True Signal: fp=CGAAT pool=6
        True Signal: fp=TAAGG pool=1
  30    True Signal: fp=AAGGT pool=9
        True Signal: fp=AAGGT pool=12
        True Signal: fp=GCTGA pool=12
        True Signal: fp=TGCAG pool=5
        True Signal: fp=TAGCG pool=5
  35    True Signal: fp=GCGAT pool=14
        True Signal: fp=GCTGC pool=10
        True Signal: fp=GCTGG pool=1
        True Signal: fp=GGTCG pool=0
        True Signal: fp=TCAAT pool=4
  40    True Signal: fp=TAAGT pool=2
        True Signal: fp=CCTGT pool=5
        True Signal: fp=TCTCG pool=12
        True Signal: fp=TGTGA pool=9
        True Signal: fp=GCTGT pool=2
  45    True Signal: fp=GGTCT pool=13
        True Signal: fp=CAATA pool=7
        True Signal: fp=GAATA pool=0
        True Signal: fp=GAATA pool=15
```

$\overset{A}{}$ 102 -

```
True Signal: fp=ATTTA pool=1
True Signal: fp=ATTTA pool=12
10mers:18240
11mers:2483
12mers:581
13mers:357
14mers:335
15mers:325
16mers:321
17mers:322
18mers:319
19mers:317
20mers:315
21mers:313
22mers:313
23mers:310
24mers:310
25mers:310
26mers:307
27mers:305
28mers:304
29mers:302
30mers:302
31mers:301
32mers:298
33mers:297
34mers:296
35mers:295
36mers:294
37mers:293
38mers:292
39mers:292
40mers:291
41mers:290
42mers:289
43mers:288
44mers:287
45mers:288
46mers:285
47mers:283
48mers:282
49mers:281
50mers:281
51mers:279
52mers:278
53mers:277
54mers:276
55mers:275
```

```
56mers:275
57mers:275
58mers:273
59mers:271
60mers:271
61mers:271
62mers:271
63mers:268
64mers:267
65mers:268
66mers:265
67mers:264
68mers:262
69mers:261
70mers:260
71mers:259
72mers:258
73mers:257
74mers:254
75mers:253
76mers:252
77mers:252
78mers:250
79mers:250
80mers:249
81mers:247
82mers:246
83mers:245
84mers:245
85mers:244
86mers:241
87mers:240
88mers:239
89mers:238
90mers:239
91mers:239
92mers:237
93mers:234
94mers:233
95mers:232
96mers:230
97mers:229
98mers:228
99mers:228
100mers:227
101mers:225
102mers:224
103mers:225
```

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A 104 -

```
104mers:222
105mers:222
106mers:222
107mers:220
108mers:218
109mers:217
110mers:217
111mers:216
112mers:215
113mers:214
114mers:211
115mers:211
116mers:209
117mers:208
118mers:209
119mers:207
120mers:206
121mers:203
122mers:201
123mers:200
124mers:199
125mers:199
126mers:197
127mers:196
128mers:195
129mers:195
130mers:193
131mers:192
132mers:192
133mers:191
134mers:188
135mers:187
136mers:186
137mers:185
138mers:184
139mers:183
140mers:182
141mers:181
142mers:180
143mers:179
144mers:179
145mers:178
146mers:177
147mers:176
148mers:174
149mers:173
150mers:173
151mers:171
```

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```
          152mers:170
          153mers:169
          154mers:168
          155mers:167
    5     156mers:166
          157mers:166
          158mers:165
          159mers:163
          160mers:161
   10     161mers:160
          162mers:159
          163mers:158
          164mers:157
          165mers:158
   15     166mers:157
          167mers:154
          168mers:153
          169mers:153
          170mers:152
   20     171mers:150
          172mers:150
          173mers:150
          174mers:149
          175mers:147
   25     176mers:147
          177mers:144
          178mers:144
          179mers:142
          180mers:142
   30     181mers:140
          182mers:139
          183mers:138
          184mers:137
          185mers:137
   35     186mers:135
          187mers:134
          188mers:133
          189mers:131
          190mers:130
   40     191mers:132
          192mers:130
          193mers:128
          194mers:126
          195mers:125
   45     196mers:124
          197mers:124
          198mers:122
          199mers:122
```

```
200mers:120
201mers:119
202mers:120
203mers:120
204mers:117
205mers:115
206mers:115
207mers:113
208mers:113
209mers:110
210mers:109
211mers:108
212mers:107
213mers:106
214mers:106
215mers:105
216mers:103
217mers:103
218mers:102
219mers:102
220mers:103
221mers:99
222mers:96
223mers:96
224mers:95
225mers:94
226mers:92
227mers:91
228mers:90
229mers:89
230mers:87
231mers:86
232mers:86
233mers:84
234mers:81
235mers:79
236mers:78
237mers:77
238mers:77
239mers:78
240mers:75
241mers:72
242mers:70
243mers:69
244mers:68
245mers:67
246mers:66
247mers:65
```

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```
248mers:64
249mers:64
250mers:64
251mers:62
5    252mers:60
253mers:60
254mers:60
255mers:57
256mers:56
10   257mers:55
258mers:55
259mers:53
260mers:51
261mers:50
15   262mers:50
263mers:48
264mers:48
265mers:49
266mers:48
20   267mers:44
268mers:43
269mers:43
270mers:42
271mers:41
25   272mers:38
273mers:38
274mers:36
275mers:34
276mers:33
30   277mers:33
278mers:32
279mers:30
280mers:28
281mers:25
35   282mers:24
283mers:24
284mers:23
285mers:22
286mers:19
40   287mers:17
288mers:16
289mers:15
290mers:15
291mers:13
45   292mers:11
293mers:9
294mers:8
295mers:7
```

A 108 -

```
296mers:6
297mers:5
298mers:4
299mers:3
300mers:1

GTAGGGGTAG ACATCGCGTA AAAGGGGCGT ACCCAGGACC CCCCTTGGCT CAATAAGTAG
CGCTGGGGTG CTACTACGGG TCTCGACACG CATTCAACTA AAAGCTTCCA TTCGCACGGG
CTTATTTAAC GAAGGTCGCG ATAAGGTGCC GAATAGGCTG CAGAGCGGCA GCCTGTCCAG
TGAATGCTGT GAGGCCTCCA GCTGACTCAT GAGAGAAGCC CAGTATTCAA ACTACGATTC
CACTCGACAA TTTAGGATGT CTTCCCGAAA GCTATCGGGT AGAATATCAG ATTCGTTTAA

True solution   DotsOn=285

Solutions: 1
```

```
r300.100.15.DN16.out

Using pool DN16
Using sequence r300

True Signal: fp=CTCGA pool=7
True Signal: fp=CTACG pool=1
True Signal: fp=CTACG pool=2
True Signal: fp=GTACC pool=0
True Signal: fp=ATCGC pool=1
True Signal: fp=GAATG pool=15
True Signal: fp=ATCGG pool=13
True Signal: fp=GTCGC pool=13
True Signal: fp=ACCCA pool=14
True Signal: fp=CTGGG pool=10
True Signal: fp=CAATT pool=3
True Signal: fp=GACAA pool=1
True Signal: fp=TACTA pool=3
True Signal: fp=ACCCC pool=6
True Signal: fp=AGACA pool=10
True Signal: fp=TTCCA pool=8
True Signal: fp=TTCCA pool=4
True Signal: fp=ACGCA pool=8
True Signal: fp=GACAC pool=2
True Signal: fp=CGACA pool=10
True Signal: fp=CGACA pool=11
True Signal: fp=CTACT pool=10
True Signal: fp=CCCCC pool=2
True Signal: fp=CCCCC pool=14
True Signal: fp=TTCCC pool=12
True Signal: fp=GCCCA pool=1
True Signal: fp=GAGAA pool=8
True Signal: fp=CCAGC pool=5
True Signal: fp=CAGAG pool=3
True Signal: fp=GCAGA pool=1
True Signal: fp=GCAGC pool=12
True Signal: fp=CGCGA pool=3
True Signal: fp=AGCGC pool=0
True Signal: fp=GGACC pool=1
True Signal: fp=CCAGG pool=7
True Signal: fp=TTAGG pool=1
True Signal: fp=GAGAG pool=6
True Signal: fp=TAAAA pool=11
True Signal: fp=AGCGG pool=4
True Signal: fp=ACTAA pool=15
True Signal: fp=CGGGC pool=4
True Signal: fp=ACTAC pool=4
True Signal: fp=ACTAC pool=7
```

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```
       True Signal: fp=AGGGG pool=9
       True Signal: fp=AGGGG pool=5
       True Signal: fp=TTTAA pool=15
       True Signal: fp=GGGGC pool=7
  5    True Signal: fp=CAGAT pool=11
       True Signal: fp=CATGA pool=14
       True Signal: fp=AATGC pool=1
       True Signal: fp=CCCCT pool=13
       True Signal: fp=GACAT pool=4
 10    True Signal: fp=TCTTC pool=8
       True Signal: fp=CCAGT pool=10
       True Signal: fp=CCAGT pool=9
       True Signal: fp=GCTAC pool=9
       True Signal: fp=TTTAG pool=11
 15    True Signal: fp=TGAGA pool=12
       True Signal: fp=TGCCG pool=8
       True Signal: fp=GCGCT pool=15
       True Signal: fp=CGCGT pool=4
       True Signal: fp=TGAGG pool=5
 20    True Signal: fp=TCGGG pool=1
       True Signal: fp=CGGGT pool=8
       True Signal: fp=CGGGT pool=12
       True Signal: fp=GGCGT pool=12
       True Signal: fp=TATCA pool=4
 25    True Signal: fp=ATATC pool=9
       True Signal: fp=CTATC pool=6
       True Signal: fp=GGGGT pool=11
       True Signal: fp=GGGGT pool=14
       True Signal: fp=TATCG pool=3
 30    True Signal: fp=GCTAT pool=3
       True Signal: fp=GATGT pool=0
       True Signal: fp=TGGCT pool=6
       True Signal: fp=CTCAA pool=15
       True Signal: fp=ATCAG pool=6
 35    True Signal: fp=CGATA pool=2
       True Signal: fp=CTGAC pool=5
       True Signal: fp=GTATT pool=11
       True Signal: fp=ATGAG pool=8
       True Signal: fp=GCCTC pool=11
 40    True Signal: fp=GTGAA pool=2
       True Signal: fp=GCGTA pool=0
       True Signal: fp=GCGTA pool=9
       True Signal: fp=GCCTG pool=12
       True Signal: fp=GGATG pool=1
 45    True Signal: fp=GTGAG pool=0
       True Signal: fp=TTAAC pool=6
       True Signal: fp=AAAGC pool=1
       True Signal: fp=AAAGC pool=6
```

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```
        True Signal: fp=AAGCC pool=8
        True Signal: fp=CTCAT pool=8
        True Signal: fp=AGATT pool=12
        True Signal: fp=CAGCC pool=10
     5  True Signal: fp=CGCAC pool=3
        True Signal: fp=AAAGG pool=1
        True Signal: fp=GACCC pool=9
        True Signal: fp=CCCTT pool=1
        True Signal: fp=CGATT pool=11
    10  True Signal: fp=GAAGC pool=5
        True Signal: fp=TCATG pool=1
        True Signal: fp=AGGAC pool=6
        True Signal: fp=TGCTA pool=4
        True Signal: fp=GAAGG pool=10
    15  True Signal: fp=AATAA pool=2
        True Signal: fp=TGCTG pool=9
        True Signal: fp=GGCAG pool=1
        True Signal: fp=GAGCG pool=3
        True Signal: fp=CTTGG pool=1
    20  True Signal: fp=ACAAT pool=6
        True Signal: fp=ACTCA pool=7
        True Signal: fp=TCCAC pool=10
        True Signal: fp=AATAG pool=13
        True Signal: fp=GATAA pool=1
    25  True Signal: fp=TACGA pool=6
        True Signal: fp=TATTC pool=2
        True Signal: fp=CCTCC pool=3
        True Signal: fp=TAACG pool=14
        True Signal: fp=AAGCT pool=12
    30  True Signal: fp=AAGCT pool=5
        True Signal: fp=ACTCG pool=15
        True Signal: fp=CAGCT pool=9
        True Signal: fp=TCCAG pool=8
        True Signal: fp=CGCAT pool=11
    35  True Signal: fp=TCGAC pool=9
        True Signal: fp=TCGAC pool=5
        True Signal: fp=GCTCA pool=5
        True Signal: fp=AGGAT pool=8
        True Signal: fp=TAGGA pool=15
    40  True Signal: fp=AGTGA pool=14
        True Signal: fp=TAGGC pool=13
        True Signal: fp=TACGG pool=7
        True Signal: fp=TAGGG pool=13
        True Signal: fp=AATAT pool=13
    45  True Signal: fp=GGTGC pool=1
        True Signal: fp=GGTGC pool=5
        True Signal: fp=TCCAT pool=9
        True Signal: fp=TGAAT pool=10
```

```
        True Signal:  fp=TATTT  pool=6
        True Signal:  fp=TGTCC  pool=10
        True Signal:  fp=AACTA  pool=1
        True Signal:  fp=AACTA  pool=3
  5     True Signal:  fp=CACTC  pool=7
        True Signal:  fp=CTCCA  pool=6
        True Signal:  fp=AAGTA  pool=7
        True Signal:  fp=CAGTA  pool=8
        True Signal:  fp=GACTC  pool=14
 10     True Signal:  fp=GTCCA  pool=3
        True Signal:  fp=CTGCA  pool=11
        True Signal:  fp=ATAGG  pool=14
        True Signal:  fp=GTAGA  pool=8
        True Signal:  fp=GTAGA  pool=9
 15     True Signal:  fp=TGTCT  pool=0
        True Signal:  fp=CAGTG  pool=15
        True Signal:  fp=GTAGC  pool=14
        True Signal:  fp=GTGCC  pool=10
        True Signal:  fp=CAAAC  pool=11
 20     True Signal:  fp=GTAGG  pool=3
        True Signal:  fp=AAAAG  pool=0
        True Signal:  fp=AAAAG  pool=2
        True Signal:  fp=ACACG  pool=5
        True Signal:  fp=GAAAG  pool=14
 25     True Signal:  fp=CCCGA  pool=15
        True Signal:  fp=AGCCC  pool=10
        True Signal:  fp=AGAGA  pool=13
        True Signal:  fp=ATGCT  pool=6
        True Signal:  fp=AGAGC  pool=14
 30     True Signal:  fp=GCTTA  pool=9
        True Signal:  fp=AGGCC  pool=12
        True Signal:  fp=CGGCA  pool=10
        True Signal:  fp=GCCGA  pool=7
        True Signal:  fp=CCTTG  pool=2
 35     True Signal:  fp=GCTTC  pool=5
        True Signal:  fp=TTCGC  pool=10
        True Signal:  fp=GCACG  pool=10
        True Signal:  fp=TTGGC  pool=12
        True Signal:  fp=GTGCT  pool=9
 40     True Signal:  fp=ACGGG  pool=0
        True Signal:  fp=ACGGG  pool=3
        True Signal:  fp=GCGGC  pool=11
        True Signal:  fp=TAGAA  pool=2
        True Signal:  fp=CCACT  pool=13
 45     True Signal:  fp=GGGCG  pool=2
        True Signal:  fp=TCAGA  pool=9
        True Signal:  fp=CGTAA  pool=12
        True Signal:  fp=TAGAC  pool=11
```

```
      True Signal: fp=CTTAT pool=13
      True Signal: fp=AGCCT pool=0
      True Signal: fp=CGTAC pool=7
      True Signal: fp=CATCG pool=7
  5   True Signal: fp=TCGCA pool=7
      True Signal: fp=TCCCG pool=1
      True Signal: fp=AGTAG pool=9
      True Signal: fp=AGGCT pool=10
      True Signal: fp=GGCCT pool=8
 10   True Signal: fp=TCGCG pool=5
      True Signal: fp=GGTAG pool=10
      True Signal: fp=GGTAG pool=3
      True Signal: fp=GGGCT pool=8
      True Signal: fp=TGGGG pool=1
 15   True Signal: fp=AGTAT pool=0
      True Signal: fp=ATGTC pool=9
      True Signal: fp=TGACT pool=9
      True Signal: fp=CTGTC pool=11
      True Signal: fp=GTCTC pool=4
 20   True Signal: fp=CTGTG pool=3
      True Signal: fp=CTAAA pool=14
      True Signal: fp=ACATC pool=13
      True Signal: fp=GTAAA pool=13
      True Signal: fp=ATAAG pool=13
 25   True Signal: fp=AGCTA pool=4
      True Signal: fp=GTCTT pool=13
      True Signal: fp=AGCTG pool=4
      True Signal: fp=AGGTC pool=1
      True Signal: fp=CGCTG pool=12
 30   True Signal: fp=GGCTC pool=14
      True Signal: fp=AGGTG pool=8
      True Signal: fp=GGGTA pool=10
      True Signal: fp=GGGTA pool=15
      True Signal: fp=GGCTG pool=2
 35   True Signal: fp=GGGTC pool=10
      True Signal: fp=CGAAA pool=3
      True Signal: fp=ATTCA pool=13
      True Signal: fp=ATTCA pool=6
      True Signal: fp=TTCAA pool=9
 40   True Signal: fp=TTCAA pool=12
      True Signal: fp=AACGA pool=11
      True Signal: fp=ACGAA pool=13
      True Signal: fp=ATTCC pool=2
      True Signal: fp=CCGAA pool=12
 45   True Signal: fp=CCGAA pool=14
      True Signal: fp=CATTC pool=13
      True Signal: fp=CCATT pool=11
      True Signal: fp=GGGTG pool=6
```

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```
      True Signal: fp=AGAAG pool=0
      True Signal: fp=CCCAG pool=3
      True Signal: fp=CCCAG pool=5
      True Signal: fp=CACGC pool=10
 5    True Signal: fp=CTTCC pool=14
      True Signal: fp=CTTCC pool=6
      True Signal: fp=TTATT pool=0
      True Signal: fp=GATTC pool=12
      True Signal: fp=GATTC pool=14
10    True Signal: fp=CAGGA pool=6
      True Signal: fp=GCATT pool=15
      True Signal: fp=AGCTT pool=4
      True Signal: fp=ATTCG pool=9
      True Signal: fp=ATTCG pool=5
15    True Signal: fp=CGAAG pool=14
      True Signal: fp=CACGG pool=9
      True Signal: fp=AAGGG pool=13
      True Signal: fp=GAGGC pool=11
      True Signal: fp=GGCTT pool=11
20    True Signal: fp=AAACT pool=4
      True Signal: fp=TCAAA pool=4
      True Signal: fp=TCAAC pool=5
      True Signal: fp=CAACT pool=4
      True Signal: fp=AGAAT pool=10
25    True Signal: fp=AATTT pool=8
      True Signal: fp=TACCC pool=5
      True Signal: fp=ACGAT pool=1
      True Signal: fp=CGAAT pool=6
      True Signal: fp=TAAGG pool=1
30    True Signal: fp=AAGGT pool=9
      True Signal: fp=AAGGT pool=12
      True Signal: fp=GCTGA pool=12
      True Signal: fp=TGCAG pool=5
      True Signal: fp=TAGCG pool=5
35    True Signal: fp=GCGAT pool=14
      True Signal: fp=GCTGC pool=10
      True Signal: fp=GCTGG pool=1
      True Signal: fp=GGTCG pool=0
      True Signal: fp=TCAAT pool=4
40    True Signal: fp=TAAGT pool=2
      True Signal: fp=CCTGT pool=5
      True Signal: fp=TCTCG pool=12
      True Signal: fp=TGTGA pool=9
      True Signal: fp=GCTGT pool=2
45    True Signal: fp=GGTCT pool=13
      True Signal: fp=CAATA pool=7
      True Signal: fp=GAATA pool=0
      True Signal: fp=GAATA pool=15
```

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```
     True Signal: fp=ATTTA pool=1
     True Signal: fp=ATTTA pool=12
     False positive Signal: fp=AGACT pool=2
     False positive Signal: fp=AACTG pool=12
  5  False positive Signal: fp=CCACA pool=11
     False positive Signal: fp=GCCGC pool=7
     False positive Signal: fp=CATAC pool=2
     False positive Signal: fp=GTGTA pool=0
     False positive Signal: fp=AAGAG pool=9
 10  False positive Signal: fp=GATGT pool=7
     False positive Signal: fp=CAAGC pool=6
     False positive Signal: fp=GGGAC pool=3
     False positive Signal: fp=ATTTC pool=9
     False positive Signal: fp=GATTA pool=1
 15  False positive Signal: fp=TCCCT pool=10
     False positive Signal: fp=GGTAC pool=11
     False positive Signal: fp=GCAGC pool=9
     False positive Signal: fp=CCGCT pool=4
     False positive Signal: fp=CATTT pool=3
 20  False positive Signal: fp=ACTGA pool=15
     False positive Signal: fp=AGAGC pool=2
     False positive Signal: fp=GTCCA pool=10
     False positive Signal: fp=TGAGA pool=2
     False positive Signal: fp=GAATC pool=10
 25  False positive Signal: fp=ATCTC pool=1
     False positive Signal: fp=CACCC pool=5
     False positive Signal: fp=CTGGT pool=10
     False positive Signal: fp=CGGCT pool=7
     False positive Signal: fp=CAAGT pool=3
 30  False positive Signal: fp=TAGAT pool=2
     False positive Signal: fp=AGGCG pool=2
     False positive Signal: fp=GTCTA pool=11
     False positive Signal: fp=CAATA pool=1
     False positive Signal: fp=GTAGG pool=8
 35  False positive Signal: fp=GTGAC pool=2
     False positive Signal: fp=GATGC pool=4
     False positive Signal: fp=GACGC pool=2
     False positive Signal: fp=AGCCA pool=12
     False positive Signal: fp=GCAGC pool=7
 40  False positive Signal: fp=GGTGA pool=7
     False positive Signal: fp=TATCT pool=6
     False positive Signal: fp=CATAT pool=15
     False positive Signal: fp=AGATC pool=7
     False positive Signal: fp=TATAG pool=14
 45  False positive Signal: fp=TCAAA pool=0
     False positive Signal: fp=ACTCA pool=10
     False positive Signal: fp=GACAA pool=3
     False positive Signal: fp=GTCTA pool=9
```

```
     False positive Signal: fp=ACTCC pool=1
     False positive Signal: fp=CGGAG pool=6
     False positive Signal: fp=CCTAA pool=8
     False positive Signal: fp=GTCCG pool=13
5    False positive Signal: fp=CGACA pool=15
     False positive Signal: fp=CCTGA pool=10
     False positive Signal: fp=CCATT pool=9
     False positive Signal: fp=ACTAT pool=4
     False positive Signal: fp=AACCG pool=9
10   False positive Signal: fp=CGATC pool=11
     False positive Signal: fp=TGGAG pool=3
     False positive Signal: fp=AGCCC pool=0
     False positive Signal: fp=ATCTC pool=10
     False positive Signal: fp=CATTA pool=6
15   False positive Signal: fp=GCTGG pool=12
     False positive Signal: fp=GTGCA pool=13
     False positive Signal: fp=CACTC pool=10
     False positive Signal: fp=AACAT pool=14
     False positive Signal: fp=GCCAC pool=7
20   False positive Signal: fp=AAGAC pool=3
     False positive Signal: fp=CGTGG pool=12
     False positive Signal: fp=CGTTT pool=0
     False positive Signal: fp=CTCGC pool=13
     False positive Signal: fp=GGAAA pool=9
25   False positive Signal: fp=GGTCC pool=15
     False positive Signal: fp=TCTGA pool=15
     False positive Signal: fp=TCAAC pool=15
     False positive Signal: fp=AAGCA pool=9
     False positive Signal: fp=GGAAG pool=1
30   False positive Signal: fp=GTGGG pool=1
     False positive Signal: fp=TAAGC pool=9
     False positive Signal: fp=TGGGA pool=10
     False positive Signal: fp=GTTTA pool=2
     False positive Signal: fp=GGGCG pool=12
35   False positive Signal: fp=ACAGG pool=0
     False positive Signal: fp=ACATC pool=9
     False positive Signal: fp=CAATG pool=3
     False positive Signal: fp=AAAGC pool=9
     False positive Signal: fp=GGAAC pool=5
40   False positive Signal: fp=GGGGA pool=0
     False positive Signal: fp=CTGGT pool=13
     False positive Signal: fp=GGGTA pool=15
     False positive Signal: fp=ATCTC pool=9
     False positive Signal: fp=GTCAC pool=15
45   False positive Signal: fp=AAGTT pool=7
     False positive Signal: fp=CCATG pool=8
     False positive Signal: fp=TAAGG pool=15
     False positive Signal: fp=AAAGC pool=6
```

```
       False positive Signal: fp=CCGGT pool=3
       False positive Signal: fp=ACAAA pool=13
       False positive Signal: fp=TCTTT pool=14
       False positive Signal: fp=CTGTA pool=6
   5   False positive Signal: fp=CAGTG pool=15
       False positive Signal: fp=CCCAG pool=0
       False negative : fp= pool=
       False negative : fp=CTCGA pool=7
       False negative : fp=CTACG pool=1
  10   False negative : fp=CTACG pool=2
       False negative : fp=GTACC pool=0
       False negative : fp=ATCGC pool=1
       False negative : fp=GAATG pool=15
       False negative : fp=ATCGG pool=13
  15   False negative : fp=GTCGC pool=13
       False negative : fp=ACCCA pool=14
       False negative : fp=CTGGG pool=10
       False negative : fp=CAATT pool=3
       False negative : fp=GACAA pool=1
  20   False negative : fp=TACTA pool=3
       False negative : fp=ACCCC pool=6
       10mers:23552
       11mers:20332
       12mers:15187
  25   13mers:10500
       14mers:8165
       15mers:6357
       16mers:5426
       17mers:4711
  30   18mers:4327
       19mers:4105
       20mers:4006
       21mers:3949
       22mers:3895
  35   23mers:3800
       24mers:3721
       25mers:3650
       26mers:3611
       27mers:3627
  40   28mers:3613
       29mers:3613
       30mers:3605
       31mers:3596
       32mers:3619
  45   33mers:3656
       34mers:3673
       35mers:3700
       36mers:3714
```

```
37mers:3768
38mers:3822
39mers:3838
40mers:3845
5        41mers:3856
42mers:3920
43mers:3982
44mers:4015
45mers:4080
10       46mers:4132
47mers:4109
48mers:4126
49mers:4098
50mers:4084
15       51mers:4096
52mers:4131
53mers:4180
54mers:4257
55mers:4320
20       56mers:4384
57mers:4486
58mers:4532
59mers:4565
60mers:4567
25       61mers:4624
62mers:4729
63mers:4873
64mers:4994
65mers:5081
30       66mers:5141
67mers:5169
68mers:5191
69mers:5220
70mers:5299
35       71mers:5427
72mers:5558
73mers:5648
74mers:5674
75mers:5691
40       76mers:5716
77mers:5777
78mers:5833
79mers:5865
80mers:5893
45       81mers:5968
82mers:6075
83mers:6198
84mers:6331
```

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```

85mers:6394
86mers:6470
87mers:6535
88mers:6606
89mers:6668
90mers:6721
91mers:6778
92mers:6842
93mers:6891
94mers:6895
95mers:6881
96mers:6901
97mers:6920
98mers:6925
99mers:6908
100mers:6883
101mers:4871
102mers:4792
103mers:4761
104mers:4729
105mers:4714
106mers:4751
107mers:4810
108mers:4879
109mers:4878
110mers:4811
111mers:4738
112mers:4684
113mers:4614
114mers:4555
115mers:4502
116mers:4475
117mers:4448
118mers:4402
119mers:4399
120mers:4435
121mers:4439
122mers:4449
123mers:4453
124mers:4419
125mers:4380
126mers:4363
127mers:4304
128mers:4243
129mers:4166
130mers:4087
131mers:4068
132mers:4041

```
133mers:4003
134mers:3959
135mers:3906
136mers:3859
137mers:3802
138mers:3743
139mers:3713
140mers:3616
141mers:3577
142mers:3589
143mers:3572
144mers:3618
145mers:3668
146mers:3697
147mers:3670
148mers:3639
149mers:3580
150mers:3503
151mers:3431
152mers:3384
153mers:3359
154mers:3330
155mers:3321
156mers:3288
157mers:3313
158mers:3325
159mers:3313
160mers:3273
161mers:3251
162mers:3212
163mers:3196
164mers:3185
165mers:3179
166mers:3182
167mers:3129
168mers:3091
169mers:3048
170mers:3080
171mers:3069
172mers:3061
173mers:3036
174mers:3012
175mers:2970
176mers:2911
177mers:2912
178mers:2891
179mers:2925
180mers:2945
```

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```
         181mers:2992
         182mers:3019
         183mers:3002
         184mers:2973
    5    185mers:2965
         186mers:2973
         187mers:2981
         188mers:2955
         189mers:2899
    10   190mers:2836
         191mers:2756
         192mers:2707
         193mers:2673
         194mers:2646
    15   195mers:2628
         196mers:2618
         197mers:2591
         198mers:2580
         199mers:2596
    20   200mers:2623
         201mers:2623
         202mers:2595
         203mers:2583
         204mers:2529
    25   205mers:2505
         206mers:2524
         207mers:2527
         208mers:2555
         209mers:2523
    30   210mers:2487
         211mers:2431
         212mers:2364
         213mers:2307
         214mers:2263
    35   215mers:2227
         216mers:2168
         217mers:2123
         218mers:2077
         219mers:2065
    40   220mers:2035
         221mers:2020
         222mers:2034
         223mers:2038
         224mers:2026
    45   225mers:2000
         226mers:1975
         227mers:1943
         228mers:1879
```

```
229mers:1808
230mers:1771
231mers:1720
232mers:1687
233mers:1620
234mers:1548
235mers:1492
236mers:1453
237mers:1405
238mers:1381
239mers:1338
240mers:1272
241mers:1222
242mers:1190
243mers:1171
244mers:1129
245mers:1104
246mers:1095
247mers:1066
248mers:1021
249mers:996
250mers:939
251mers:896
252mers:850
253mers:795
254mers:742
255mers:679
256mers:649
257mers:631
258mers:613
259mers:602
260mers:605
261mers:600
262mers:585
263mers:568
264mers:540
265mers:509
266mers:487
267mers:472
268mers:451
269mers:418
270mers:395
271mers:365
272mers:337
273mers:319
274mers:285
275mers:266
276mers:246
```

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```
       277mers:223
       278mers:203
       279mers:194
       280mers:183
   5   281mers:173
       282mers:173
       283mers:161
       284mers:145
       285mers:136
  10   286mers:135
       287mers:130
       288mers:123
       289mers:121
       290mers:105
  15   291mers:91
       292mers:84
       293mers:66
       294mers:53
       295mers:41
  20   296mers:31
       297mers:26
       298mers:21
       299mers:16
       300mers:10
  25 GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
     GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
     GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
     CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
     CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTAA
  30  True solution   DotsOn=285

     GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
     GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
     GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
  35 CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
     CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCCCATGT
       DotsOn=283

     GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
  40 GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
     CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
     CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
     TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTT
       DotsOn=285

  45

     GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
     GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
     GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
```

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```
CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTTG
   DotsOn=285


GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCCCATG
   DotsOn=284


GGGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGC
TGGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTA
ACGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAG
GCCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGAT
GTCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTT
   DotsOn=284


GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTG
   DotsOn=285


GGGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGC
TGGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTA
ACGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAG
GCCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGAT
GTCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCCCAT
   DotsOn=284


GGTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCT
GGGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAA
CGAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGG
CCTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATG
TCTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTA
   DotsOn=285


GTAGGGGTAGACATCGCGTAAAAGGGGCGTACCCAGGACCCCCCTTGGCTCAATAAGTAGCGCTG
GGGTGCTACTACGGGTCTCGACACGCATTCAACTAAAAGCTTCCATTCGCACGGGCTTATTTAAC
GAAGGTCGCGATAAGGTGCCGAATAGGCTGCAGAGCGGCAGCCTGTCCAGTGAATGCTGTGAGGC
CTCCAGCTGACTCATGAGAGAAGCCCAGTATTCAAACTACGATTCCACTCGACAATTTAGGATGT
CTTCCCGAAAGCTATCGGGTAGAATATCAGATTCGTTTGA
   DotsOn=284


Solutions: 10
```